



**MEMPHIS
STATE
UNIVERSITY
BULLETIN**

**CATALOG
ISSUE
1967-1968**

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Inquiries will receive prompt attention if addressed to the administrative officers indicated below, at Memphis State University, Memphis, Tennessee 38111.

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BULLETIN OF MEMPHIS STATE UNIVERSITY

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UNIVERSITY

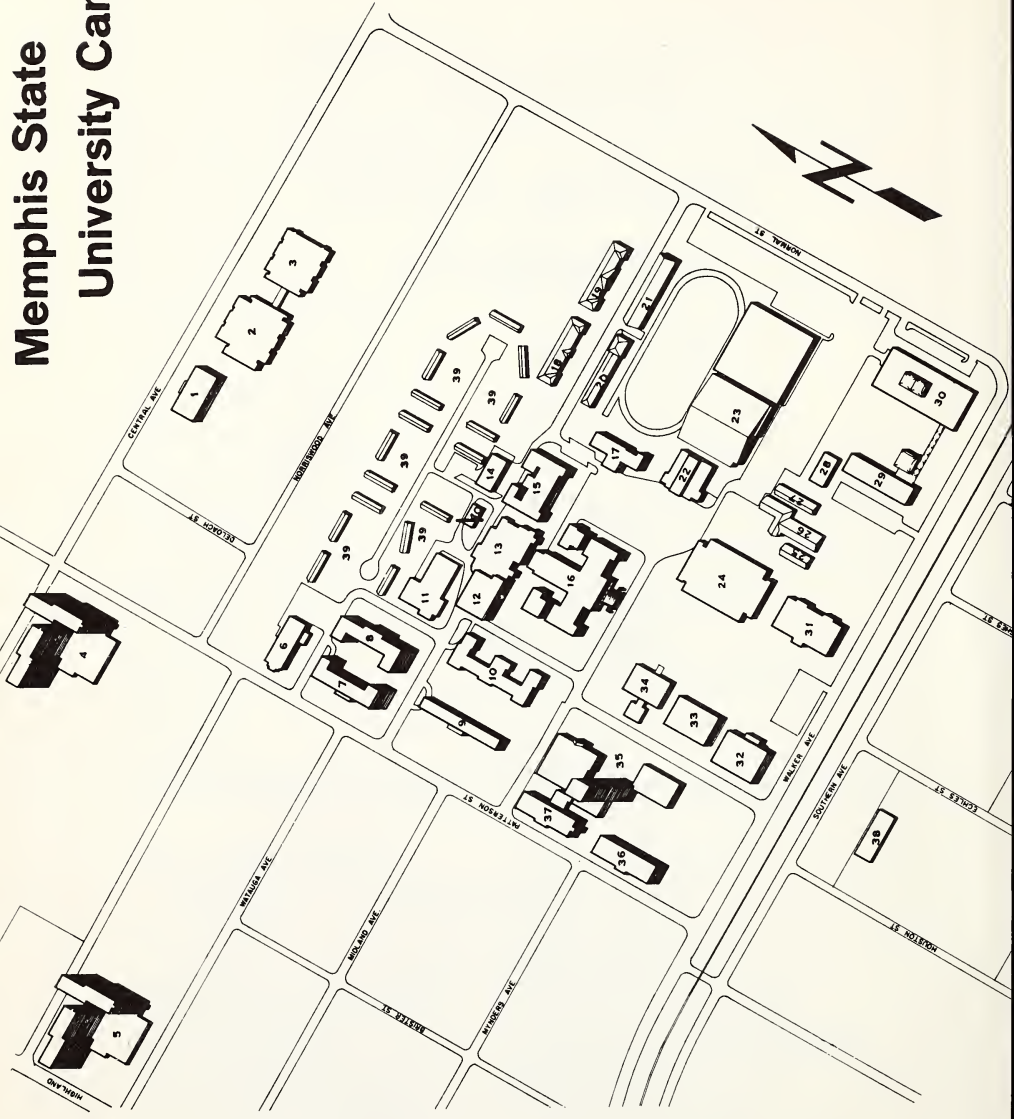
CATALOG
1967-1968

*The Fifty-sixth Session will open
Thursday, September 7, 1967*

MEMPHIS, TENNESSEE

FEBRUARY, 1967

Memphis State University Campus



1. SCHOOL OF LAW
2. SPEECH AND DRAMA
3. MUSIC
4. CENTRAL TOWERS
5. HIGHLAND TOWERS
6. PANHELLENIC BUILDING
7. NELLIE ANGEL SMITH HALL
8. RAWLS HALL
9. WEST HALL
10. MYRDERS HALL
11. INDUSTRIAL TECHNOLOGY
12. JONES HALL
13. CAFETERIA
14. MAINTENANCE
15. MANNING HALL
16. ADMINISTRATION BUILDING
17. SCATES HALL
18. NORTH HALL
19. EAST HALL
20. HAYDEN HALL
21. ROBISON HALL
22. WKNO-TV
23. FIELD HOUSE
24. STUDENT CENTER*
25. SCHOOL OF ENGINEERING
26. SCHOOL OF ENGINEERING
27. UNIVERSITY BOOKSTORE
28. ENGINEERING
29. SCHOOL OF EDUCATION
30. CAMPUS SCHOOL
31. J. MILLARD SMITH HALL (CHEMISTRY)
32. ELLINGTON HALL (BIOLOGY)
33. CLEMENT HALL (HUMANITIES)
34. SCHOOL OF BUSINESS ADMINISTRATION
35. BRISTER LIBRARY*
36. PATTERSON HALL (ENGLISH)
37. JOHNSON HALL
38. FOOTBALL TRAINING
39. MARRIED STUDENT HOUSING
40. HEATING PLANT

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SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2		1	2	3	4	5	6	7			1	2	3	4						1	2	
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
24	25	26	27	28	29	30	29	30	31					26	27	28	29	30		24	25	26	27	28	29	30	
																				31							

CALENDAR FOR 1968

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6						1	2	3						1	2		1	2	3	4	5	6
7	8	9	10	11	12	13	4	5	6	7	8	9	10	3	4	5	6	7	8	9	7	8	9	10	11	12	13
14	15	16	17	18	19	20	11	12	13	14	15	16	17	10	11	12	13	14	15	16	14	15	16	17	18	19	20
21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23	21	22	23	24	25	26	27
28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30	28	29	30				
														31													

MAY							JUNE							JULY							AUGUST							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
			1	2	3	4							1		1	2	3	4	5	6						1	2	3
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31				25	26	27	28	29	30	31	
							30																					

THE UNIVERSITY CALENDAR

1967-1968

FIRST SEMESTER

SEPTEMBER 7, THURSDAY:	Meeting of new members of the University faculty, University Auditorium, 9:00 A.M.
SEPTEMBER 8, FRIDAY:	Meeting of the entire University faculty, University Auditorium, 9:00 A.M.
SEPTEMBER 9, SATURDAY:	Meeting of the University faculty by schools and departments, 9:00 A.M.
SEPTEMBER 11, MONDAY through	Registration week. For detailed dates and times see <i>The Schedule of Classes</i> for the Fall Semester, 1967-68.
SEPTEMBER 16, SATURDAY:	
SEPTEMBER 18, MONDAY:	Classes meet as scheduled.
SEPTEMBER 22, FRIDAY:	Last day for adding courses.
OCTOBER 6, FRIDAY:	Holiday. West Tennessee Education Association.
OCTOBER 9, MONDAY:	Last day for dropping courses.
OCTOBER 19, THURSDAY:	English Proficiency Examination
OCTOBER 19, THURSDAY:	Last day for making application to dean of appropriate school for degrees to be conferred in January, 1968.
NOVEMBER 10, FRIDAY:	Holiday. Veterans' Day.
NOVEMBER 13, MONDAY:	Mid-semester deficiency reports due in Records Office.
NOVEMBER 23, THURSDAY through	Thanksgiving Recess.
NOVEMBER 26, SUNDAY:	
DECEMBER 17, SUNDAY through	Christmas Recess.
JANUARY 2, TUESDAY:	
JANUARY 12, FRIDAY:	Final examinations begin.
JANUARY 20, SATURDAY:	Commencement, 10:00 A.M.

SECOND SEMESTER

1967-68

JANUARY 27, SATURDAY:	Registration, The Graduate School, 9:00 A.M.
JANUARY 29, MONDAY through JANUARY 31, WEDNESDAY:	Registration. For detailed dates and times see <i>The Schedule of Classes</i> for the Spring Semester, 1968.
FEBRUARY 1, THURSDAY:	Classes meet as scheduled.
FEBRUARY 7, WEDNESDAY:	Last day for adding courses.
FEBRUARY 21, WEDNESDAY:	Last day for dropping courses.
MARCH 4, MONDAY:	Last day for making application to dean of appropriate school for degrees to be conferred in May, 1968
MARCH 7, THURSDAY:	English Proficiency Examination
MARCH 25, MONDAY:	Mid-term deficiency reports due in Records Office.
APRIL 14, SUNDAY through APRIL 21, SUNDAY:	Spring Holidays
MAY 17, FRIDAY:	Final examinations begin.
MAY 25, SATURDAY:	Commencement, 10:00 A.M.

THE SUMMER SESSION, 1968

FIRST TERM

JUNE 5, WEDNESDAY:	Dormitories will open at noon.
JUNE 6, THURSDAY and	Registration. For detailed dates and times see <i>The Schedule of Classes</i> for The Summer Session, 1968.
JUNE 7, FRIDAY:	
JUNE 10, MONDAY:	Classes meet as scheduled.
JUNE 12, WEDNESDAY:	Last day for adding first-term or two-term courses.
JUNE 14, FRIDAY:	Last day for dropping first-term courses.
JUNE 20, THURSDAY:	English Proficiency Examination
JUNE 21, FRIDAY:	Last day for dropping two-term courses.
JULY 4, THURSDAY:	Holiday. Independence Day.
JULY 11, THURSDAY:	Final examinations.

SECOND TERM

JULY 15, MONDAY:	Registration. For detailed dates and times see <i>The Schedule of Classes</i> for The Sum- mer Session, 1968.
JULY 16, TUESDAY:	Classes meet as scheduled.
JULY 18, THURSDAY:	Last day for adding second-term courses.
JULY 19, FRIDAY:	Last day for making application to dean of appropriate school for degrees to be con- ferred in August, 1968.
JULY 22, MONDAY:	Last day for dropping second-term courses.
JULY 25, THURSDAY:	English Proficiency Examination
AUGUST 15, THURSDAY:	Final examinations.
AUGUST 17, SATURDAY:	Commencement, 10:00 A.M.

Part One

OFFICERS, FACULTY, AND STAFF OF THE UNIVERSITY

THE BOARD OF EDUCATION
of
THE STATE OF TENNESSEE

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B.S., 1948, Memphis State University; M.A., 1949, Vanderbilt University.
- LEILA M. ACKLEN (1966), *Instructor in Health and Physical Education*
B.S., 1943, Winthrop College; M.S., 1945, University of North Carolina.
- MILTON CALDWELL ADDINGTON (1959), *Assistant Professor of Psychology*
B.A., 1947, Southwestern at Memphis; M.A., 1949, Ph.D., 1951, University of Tennessee.
- GABRIELA ADLER (1966), *Instructor in Romance Languages*
B.A., 1950, Bolyay University (Rumania); M.A., 1966, University of Mississippi.
- JESS MCFADDEN ALEXANDER (1964), *Assistant Professor of Art*
B.A., 1926, Winthrop College; M.A., 1946, Teachers' College, Columbia University.
- HERBERT GRAVES ALLBRITTEN (1963), *Associate Professor of Chemistry*
B.S., 1931, Murray State College; M.S., 1941, University of Kentucky; Ph.D., 1951, The Pennsylvania State University.
- MILDRED B. ALGEE (1953), *Instructor in Library Service*
B.S., 1931, Union University; M.A., 1951, George Peabody College.
- CHARLENE JAYROE ALLEN (1960), *Instructor in English*
B.A., 1957, Southwestern at Memphis; M.A., 1958, University of Alabama.
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B.F.A., 1950, M.F.A., 1951, University of Georgia.
- RUTH BRITTON ALMY (1958), *Instructor in Geography*
B.S., 1956, M.A., 1957, Memphis State University.
- WILLIAM LEO AMMINGER (1966), *Professor of Engineering*
Diplom-Ingenieur, 1952, Technical Institute of Vienna (Austria); Ph.D., 1963, Washington University.
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- EDWARD LUVERNE ANGUS (1966), *Assistant Professor of Political Science*
B.A., 1961, University of Kentucky; M.A., 1963, Pennsylvania State University.
- BARBARA L. ANTONELLI (1963), *Instructor in Physical Education*
B.A., 1960, Webster College; M.A., 1963, Washington University.

- THOMAS C. ASHCRAFT, *Adjunct Assistant Professor of Voice*
B.S., 1959, M.A., 1962, Memphis State University.
- HARRY AUSPRICH (1963), *Professor of Speech and Drama*
B.S., 1954, New York State University, College at Buffalo; M.S., 1956, University of Wisconsin; Ph.D., 1963, Michigan State University.
- ALFRED AVINS (1965), *Professor of Law*
B.A., 1954, Hunter College; LL.B., 1956, Columbia University; LL.M., 1957, New York University; M.L., 1961, J.S.D., 1962, University of Chicago; Ph.D. in Law, 1965, Churchill College, Cambridge.
- WAYNE LOUIS BABIN (1966), *Assistant Professor of Health and Physical Education*
B.S., 1960, M.S., 1961, Ed.D., 1966; University of Southern Mississippi.
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B.A., 1962, Southwestern at Memphis; M.A., 1964, Memphis State University.
- CLYDE LOWELL BALL (1964), *Professor of Law*
B.S., 1936, Memphis State University; M.A., 1937; LL.B., 1949, Vanderbilt University.
- FRANCHOT LEE BALLINGER (1966), *Instructor in English*
B.A., 1962, Kent State University; M.A., 1966, University of Virginia.
- HAROLD RAMSEY BANCROFT (1962), *Associate Professor of Biology*
B.S., 1958, M.S., 1959, Ph.D., 1962, Mississippi State University.
- PETER BANNON (1947), *Professor of English*
B.A., 1936, M.A., 1937, Ph.D., 1943, State University of Iowa.
- MELVIN C. BARBER (1959), *Instructor in Geography*
B.S., 1958, Memphis State University; M.A., 1959, George Peabody College.
- WILLIAM B. BARTON, JR. (1958), *Professor of Philosophy*
B.A., 1944, Abilene Christian College; S.T.B., 1947, S.T.M., 1948, Ph.D., 1955, Harvard University.
- JOHN DOLPHIN BASS (1965), *Assistant Professor of German*
B.A., 1959, University of Arkansas.
- LAWRENCE WILLIAM BATES (1966), *Assistant Professor of Economics*
B.A., 1963, M.A., 1966, Brigham Young University.
- GLORIA JEAN BAXTER (1965), *Instructor in Speech*
B.A., 1964, Memphis State University; M.A., 1965, Northwestern University.

- FRANK WAYNE BEATY (1965), *Instructor in Mathematics*
B.S.E., 1965; M.A., 1965, Missouri State Teachers College.
- LANELLE DARLENE BEEGLE (1966), *Instructor in Mathematics*
B.B.A., 1964, Lamar State College of Technology; M.S., 1966, Texas Agricultural and Mechanical University.
- JOHN P. BEIFUSS (1966), *Associate Professor of English*
B.A., 1952, St. Mary of the Lake; M.A., 1959, Ph. D., 1964, Loyola University (Chicago).
- EUGENE BENGE (1949), *Professor of Speech and Drama*
B.S., 1933, Memphis State University; M.A., 1949, Northwestern University.
- MICHAEL DONALD BENNETT (1966), *Instructor in Music*
B.M., 1960, University of Arizona; M.S., 1963, University of Illinois.
- WILLIAM FRANK BETHANY (1957), *Assistant Professor of Mathematics*
B.S., 1957, Memphis State University; M.S., 1958, University of Mississippi.
- NANCY JANE BILLETT (1963), *Assistant Professor of Secretarial Science*
B.B.A., 1962, M.A., 1963, Memphis State University.
- WILLIAM BITTNER (1965), *Professor of English*
B.S., 1943, Pennsylvania State College; M.A., 1948, Ph.D., 1955, University of Pennsylvania.
- HARVEY DELANO BLACK (1964), *Instructor in Biology*
B.A., 1959, Hendrix College; M.S., 1965, University of Arkansas.
- LYNETTE COOK BLACK (1965), *Instructor in English*
B.A., 1961, Hendrix College; M.A., 1964, University of Arkansas.
- SUZANNE BLAIR BLACKSHIRE (1965), *Instructor in Health and Physical Education*
B.S., 1964, M.A., 1965, Memphis State University.
- EARL WILLIAM BLANK (1966), *Professor of Speech and Drama*
Ph.B., 1922, University of Chicago; M.A., 1930, Carnegie Institute of Technology; Ph.D., 1953, University of Denver.
- LARRY LANIER BLANTON (1965), *Instructor in Mathematics*
B.S., 1964, M.S., 1965, University of Arkansas.
- ISABELLE WORDNA BOGAN (1966), *Instructor in Secretarial Science*
B.S.E., 1960, M.S.E., 1962, Arkansas State College.
- AARON M. BOOM (1949), *Professor of History*
B.A., 1940, M.A., 1941, University of Nebraska; Ph.D., 1948, University of Chicago.
- JERRY NEAL BOONE (1962), *Associate Professor of Psychology*
B.A., 1949, University of Mississippi; M.A., 1951, University of Florida; Ph.D., 1961, Vanderbilt University.

- CARROLL R. BOWMAN (1965), *Assistant Professor of Philosophy*
B.A., 1956, Mississippi College; M.A., 1960, Ph.D., 1966, Tulane University.
- DONALD A. BOYD (1957), *Assistant Professor of Management*
B.S., 1956, Delta State College; M.B.A., 1957, Indiana University.
- FRANKLIN OAKES BRANTLEY (1964), *Assistant Professor of Spanish*
B.A., 1950, University of North Carolina; M.A., 1962, Tulane University.
- WILLIAM B. BREWER (1961), *Assistant Professor of Spanish*
B.A., 1958, Memphis State University; M.A., 1959, Tulane University.
- SAM RAYMOND BROOKS (1966), *Assistant Professor of Mathematics*
B.A., 1962, M.A., 1964, University of Texas.
- SOPHIA CLARK BROTHERTON (1965), *Assistant Professor of Education*
B.S., 1956, M.A., 1961, Memphis State University; Ed.S., 1964, Colorado State College.
- WILLIAM A. BROTHERTON (1948), *Associate Professor of Industrial Technology*
B.S., 1948, Memphis State University; M.A., 1951, George Peabody College; Ed.D., 1964, Colorado State College.
- CARL DEE BROWN (1952), *Professor of Biology*
B.S., 1947, Oklahoma Baptist University; M.S., 1947, Louisiana State University; Ph.D., 1951, Iowa State University.
- JAMES ALLISON BROWN (1962), *Instructor in Health and Physical Education*
B.S., 1955, Memphis State University.
- JUDITH COMPTON BROWN (1964), *Instructor in Secretarial Science*
B.B.A., 1961, Memphis State University; M.S., 1962, University of Tennessee.
- M. GORDON BROWN (1963), *Associate Professor of Spanish*
B.A., 1927 Washington Missionary College; M.A., 1936, Emory University; Doctor of Letters, 1939, University of Dijon; Doctor of Philosophy and Letters, 1940, University of Madrid.
- WALTER ROBERT BROWN (1965), *Instructor in History*
B.A., 1962, Millsaps College; M.A., 1963, Emory University.
- LEON WOODROW BROWNLEE (1952), *Professor of Education*
B.S., 1939, Sul Ross State College; M.Ed., 1947, Ph.D., 1952, University of Texas.
- LEONARD ALLEN BRYSON (1963), *Instructor in Physical Education*
B.S., 1962, Indiana University; M.S., 1963, Southern Illinois University.
- EMMA LEE BUELL (1962), *Instructor in Spanish*
B.A., 1947, M.A., 1948, North Texas State University.

- ERWIN CLYDE BUELL (1960), *Professor of Political Science*
B.S., 1941, North Texas State University; M.S., 1947, Ph.D., 1955,
University of North Carolina.
- THOMAS BRIGHT BUFORD, JR. (1966), *Instructor in Health and
Physical Education*
B.A., 1957, Southwestern at Memphis.
- KENNETH LEE BURCH (1966), *Assistant Professor of Education*
B.A., 1957, M.A., 1959, Western Kentucky State College; Ed.D., 1966,
Indiana University.
- ORTON C. BUTLER (1960), *Assistant Professor of Geography*
B.A., 1948, Oberlin College; M.A., 1951, Clark University.
- FOY LEON CAMPBELL, JR. (1964), *Instructor in English*
B.A., 1963, University of Texas; M.A., 1964, Harvard University.
- THOMAS RAY CAPLINGER (1964), *Assistant Professor of Mathe-
matics*
B.A., 1961, Hendrix College; M.S., 1962, Florida State University.
- ANTHONY ROBERT CARIANI (1964), *Professor of Geology*
A.B., 1953, M.A., 1954, Ph.D., 1958, Boston University.
- RONALD EDWIN CARRIER (1963), *Professor of Economics and Pro-
vost of the University*
B.S., 1955, East Tennessee State University; M.S., 1957, Ph.D., 1960,
University of Illinois.
- LYLOYD LEE CHAMBERS (1964), *Instructor in English*
B.A., 1961, Wilmington College; M.A., 1962, University of Arkansas.
- FRANCES EVALYN CHANEY (1958), *Instructor in English*
B.A., 1940, Arkansas College; M.A., 1944, George Peabody College.
- LILLIAN HUNT CHANEY (1965), *Assistant Professor of Secretarial
Science*
B.S., 1953, Alabama College; M.S., 1954, University of Tennessee.
- LOUISE CAMBRON CHAPMAN (1949), *Assistant Professor of Mar-
keting*
B.S., 1947, Southeast Missouri State College; M.A., 1949, State Uni-
versity of Iowa.
- DONALD RAYMOND CHIPLEY (1966), *Assistant Professor of Educa-
tion*
B.A., 1958, LaSalle College; M.A., 1964, Ed.D., 1966, University of
Alabama.
- WILLIAM A. CHRISTENBERRY, JR. (1962), *Assistant Professor of Art*
B.F.A., 1958, M.A., 1959, University of Alabama.
- JAMES ROBERT CHUMNEY, JR. (1965), *Assistant Professor of
History*
B.S., 1957, Memphis State University; M.A., 1961, Trinity University;
Ph.D., 1964, Rice University.

- DON PEARSON CLAYPOOL (1956), *Professor of Chemistry*
B.S., 1946, Tulane University; M.S., 1950, Ph.D., 1952, University of Kentucky.
- MYRTLE S. COBB (1940), *Associate Professor of Education*
B.A., 1929, Chatham College; M.A., 1932, University of Pittsburgh; Ed.S., 1964, George Peabody College.
- SAMUEL VADAH COCHRAN, JR. (1961), *Instructor in English*
B.A., 1941, Louisiana State University; M.A., 1942, University of Wisconsin.
- DALVAN M. COGER (1965), *Instructor in History*
B.A., 1960, University of Maryland; M.A., 1965, University of South Carolina.
- WILLIAM DAVID COLES (1966), *Instructor in Health and Physical Education*
B.S., 1965, M.A., 1966, Memphis State University.
- BETTY MAY COLLINS (1966), *Instructor in Speech and Drama*
B.A., 1926, Blue Mountain College; M.A., 1939, Northwestern University.
- FRED DARWYN COLLINS (1963), *Instructor in English*
B.A., 1959, A.&M. College of Texas; M.A., 1963, University of Mississippi.
- PATRICK BURRELL COLLINS (1963), *Instructor in English*
B.S.E., 1960, Delta State College; M.A., 1961, University of Mississippi.
- JAMES W. COLMEY (1965), *Professor of Education; Director, Bureau of Educational Research and Services*
B.B.A., 1946, The University of Texas; M.A., 1947, Ed.D., 1952, Teachers College, Columbia University.
- R. J. COLTHARP (1945), *Professor of Industrial Technology*
B.A., 1927, Wesmar College; M.S., 1938, Kansas State College.
- DAVID ALAN COOMBER (1965), *Instructor in Philosophy*
B.A., 1961, Illinois College; M.A., 1965, Washington University.
- JOHN H. CORBET (1958), *Assistant Professor of Geography*
B.S., 1953, M.A., 1954, Memphis State University; Ph.D., 1966, University of Florida.
- HARRY C. COTHAM (1958), *Assistant Professor of English*
B.A., 1941, Abilene Christian College; M.A., 1948, Columbia, University.
- MARILEE EASTER COTHREN (1966), *Instructor in English*
B.A., 1963, Southern Missionary College; M.A., 1964, Andrews University.
- VICTOR MICHAEL COURY (1964), *Assistant Professor of Education*
B.A., 1942, Glennon College; M.A., 1963, Memphis State University; Ed.S., 1964, University of Georgia.

ROBERT DOYLE COX (1962), *Professor of Law; Dean of The School of Law*

LL.B., 1949, University of Oklahoma; LL.M., 1953, Duke University.

JOSEPH FARRIS CRABTREE, II (1965), *Associate Professor of Education*

B.S., 1950, Emory and Henry College; M.Ed., 1958, Ed.D., 1965, University of Virginia.

ELLERY EARL CRADER (1952), *Professor of Education; Director of The Extension Division*

B.S., 1928, Southeast Missouri State College; M.A., 1946, Ph.D., 1952, George Peabody College.

DARRELL CRASE (1966), *Assistant Professor of Health and Physical Education*

B.A., 1956, Berea College; M.S., 1958, University of Tennessee; Ph.D., 1966, Ohio State University.

CHARLES WANN CRAWFORD (1962), *Assistant Professor of History*

B.A., 1953, Harding College; M.A., 1958, University of Arkansas.

WILSON RAY CRISLER (1966), *Instructor in Mathematics*

B.S., 1965, Arkansas State College; M.S., 1966, Kansas State College of Pittsburg.

MAURICE A. CROUSE (1962), *Associate Professor of History*

B.S., 1956, Davidson College; M.A., 1957, Ph.D., 1964, Northwestern University.

ARTHUR JOHN CROWNS, JR. (1965), *Assistant Professor of Sociology*

B.S., 1947, Stevens Point State College; LL.B., 1950, M.S.W., 1958, University of Wisconsin; Ph.D., 1965, Florida State University; J.D., 1966, University of Wisconsin.

ROBERT RAY CUMMINGS (1965), *Assistant Professor of Accountancy*

B.B.A., 1963, M.B.A., 1965, Memphis State University; C.P.A., 1965, Tennessee.

MARMAUD JO CUMMINS (1966), *Instructor in Psychology*

B.S., 1964, Memphis State University; M.A., 1966, University of Mississippi.

PAUL JAMES CUNNINGHAM (1963), *Instructor in Biology*

B.S., 1956, Middle Tennessee State College; M.A., 1959, George Peabody College.

LAWRENCE WILSON CURBO (1958), *Professor of Accountancy*

B.B.A., 1950, M.B.A., 1950, University of Mississippi; C.P.A., 1950, Mississippi.

ROBERT STUART CURBO (1962), *Associate Professor of Accountancy*

B.B.A., 1957, M.B.A., 1958, University of Mississippi; C.P.A., 1965, Mississippi.

- *ARTHUR RENICH DAILEY (1960), *Assistant Professor of Spanish*
B.A., 1938, Carson Newman College; Th.M., 1942, Southern Baptist
Theological Seminary; M.A., 1960, University of Mississippi.
- MERLIN C. DAILEY (1960), *Associate Professor of Art*
B.F.A., 1958, Kansas City Art Institute; M.F.A., 1960, University of
Indiana.
- JOHN LASLEY DAMERON (1962), *Associate Professor of English*
B.S., 1950, M.A., 1952, University of North Carolina; Ph.D., 1962,
University of Tennessee.
- WALTER ELZIE DANLEY (1964), *Assistant Professor of Education*
B.S.E., 1956, Arkansas State College; M.A., 1958, Memphis State Uni-
versity; Ed.D., 1963, University of Mississippi.
- ROBERT ELMER DAVIS (1964), *Assistant Professor of Education*
B.A.E., 1954, M.Ed., 1958, Ed.D., 1962, University of Mississippi.
- MICHAEL RODGERS DEADERICK (1966), *Instructor in History*
B.A., 1964, M.A., 1965, University of Arkansas.
- PHILIP B. DEBOO (1965), *Associate Professor of Geology*
B.S., 1953, University of Bombay; M.S., 1955, Ph.D., 1963, Louisiana
State University.
- WILLIAM J. DEERE (1964), *Captain, United States Air Force; As-
sistant Professor of Aerospace Studies*
B.S., 1953, Memphis State University.
- ROBERT WADE DEININGER (1966), *Assistant Professor of Geology*
B.S., 1950, M.S., 1957, University of Wisconsin; Ph.D., 1964, Rice
University.
- THOMAS ORLANDO DEPPERSCHMIDT (1966), *Professor of Economics*
B.A., 1958, Fort Hays Kansas State College; Ph.D., 1965, University
of Texas.
- JOHN E. DEWS, JR. (1960), *Associate Professor of Psychology*
B.S., 1956, Tulane University; Ph.D., 1965, Vanderbilt University.
- GLEN DILLING (1966), *Instructor in Industrial Technology*
B.S.M.E., 1934, Purdue University.
- HARRY ROBERT DODGE (1965), *Professor of Marketing*
B.S., 1951, M.B.A., 1954, Ph.D., 1962, Ohio State University.
- DONA CAROLYN DORSETT (1966), *Instructor in History*
B.A., 1961, Memphis State University; M.A., 1963, University of
Tennessee.
- BARBARA MARTHA DOWD (1961), *Assistant Professor of Health and
Physical Education*
B.S., 1957, Memphis State University; M.A., 1958, University of Ala-
bama.

*On leave of absence, 1966-1967

- GEORGE L. DOWD (1963), *Assistant Professor of Education*
B.S., 1947, Union University; M.A., 1949, M.Ed., 1952, Ed.D., 1956,
The University of Mississippi.
- DELLE FRANK DOWELL (1965), *Instructor in English*
B.A., 1962, M.A., 1965, Baylor University.
- NANCY ANN DURDEN (1964), *Instructor in Physical Education*
B.S., 1959, Woman's College of Georgia; M.S., 1962, University of
Tennessee.
- PAUL B. EAHEART (1946), *Professor of Music*
B.S., 1937, Memphis State University; M.A., 1946, Northwestern Uni-
versity.
- JOHN BLANTON EDGAR, JR. (1960), *Assistant Professor of Manage-
ment*
B.S., 1940, U. S. Naval Academy; Vet. Cert., 1947, Harvard School of
Business Administration; M.A., 1961, Memphis State University.
- FAITH HARRIET EIKAAAS (1966), *Associate Professor of Sociology*
B.A., 1948, M.A., 1954, D.S.Sc., 1958, Syracuse University.
- JOHN WILLIAM EILERT (1965), *Associate Professor of Economics*
B.A., 1950, Wheaton College; M.S., 1958, Northern Illinois University;
Ph.D., 1963, University of Illinois.
- VIRGINIA ANGELINE ELEAZER (1961), *Instructor in Biology*
B.S.E., 1940, M.S., 1943, University of Tennessee.
- RICHARD WRIGHT ELY (1966), *Instructor in Music*
B.M., 1956, University of Montana; M.M., 1961, University of Illinois.
- MAXWELL EMERSON (1960), *Assistant Professor of Management*
B.S.C., 1957, Roosevelt University; M.A., 1961, Memphis State Uni-
versity.
- BRODIE TRAVIS ESTES (1951), *Associate Professor of Chemistry*
B.S., 1947, M.A., 1956, Memphis State University.
- JOHN Y. EUBANK, JR. (1961), *Instructor in Education*
B.S., 1954, M.A., 1960, Memphis State University.
- HENRY B. EVANS (1942), *Professor of English*
B.S., 1923, M.A., 1928, Ph.D., 1938, George Peabody College.
- JOHN EDWARD FARRIOR (1948), *Professor of English*
B.A., 1939, M.A., 1944, Ph.D., 1954, University of North Carolina.
- JULIUS C. FEAZELL (1965), *Instructor in English*
B.A., 1953, University of Southern Mississippi; M.A., 1963, Vanderbilt
University.
- VICTOR FEISAL (1959), *Associate Professor of Biology*
B.S., 1958, Memphis State University; M.S., 1960, University of Houston.
- THOMAS C. FERGUSON (1960), *Assistant Professor of Music*
B.M.E., 1954, Murray State College; M.M., 1956, Eastman School of
Music, University of Rochester.

- SUZANNE P. FIELD (1966), *Instructor in Home Economics*
B.S., 1951, M.S., 1961, Purdue University.
- WAYNE B. FISHER (1963), *Assistant Professor of Education*
B.S., 1952, M.S., 1957, Ed.D., 1966, University of Tennessee.
- JAMES ROY FITZPATRICK (1954), *Associate Professor of Accountancy*
B.S., 1948, Tennessee Polytechnic Institute; M.S., 1951, University of Kentucky; C.P.A., 1965, Tennessee.
- FAYE CAROLYN FLANAGAN (1966), *Assistant Professor of Health and Physical Education*
B.A., 1954, Judson College; M.A., 1958, George Peabody College.
- DIANE OAKERSON FLEMING (1966), *Instructor in Biology*
B.S., 1957, College of William and Mary; M.S., 1958, Emory University.
- DEWEY BRAY FOLDEN, JR. (1949), *Associate Professor of Biology*
B.S., 1947, B.A., 1948, Morris Harvey College; M.S., 1949, West Virginia University.
- JIM CARLETON FORTUNE (1965), *Assistant Professor of Education*
B.A., 1956, Southwestern at Memphis; M.A., 1960, Memphis State University; Ed.D., 1965, Stanford University.
- JESSE WELLS FOX (1947), *Professor of Chemistry*
B.S., 1931, M.A., 1937, George Peabody College.
- MAUDE GREENE FOX (1947), *Instructor in English*
B.S., 1937, M.A., 1940, George Peabody College.
- HOWARD EDWARD FRYE (1955), *Assistant Professor of Geography*
B.S., 1951, Eastern Michigan University; M.A., 1954, University of Michigan.
- ROLAND LEE FRYE (1966), *Professor of Psychology*
B.S., 1955, M.A., 1956, University of Southern Mississippi; Ph.D., 1961, Louisiana State University.
- WALTER CURRIE FURR, JR. (1963), *Instructor in English*
B.S.E., 1938, Delta State College; M.A., 1947, George Peabody College.
- JOHN WILKES FUSSELL (1966), *Assistant Professor of Education*
B.A., 1942, Southeastern Louisiana College; M.A., 1945, George Peabody College; Ed.D., 1955, University of Houston.
- NORRIS R. GABRIEL (1964), *Instructor in Industrial Technology*
B.S., 1951, Clemson College.
- EUSEBIO E. GARCIA (1966), *Instructor in French*
B.S., 1953, University of Havana; M.A., 1966, Memphis State University.
- MICHAEL MCKEE GARLAND (1965), *Assistant Professor of Physics*
B.A., 1961, Austin Peay State College; Ph.D., 1965, Clemson University.

- WILLIAM WALTON GARRETT (1963), *Associate Professor of Law*
B.S., 1949, University of Alabama; LL.B., 1954, Birmingham School of Law; LL.B., 1963, Cumberland School of Law; LL.M., 1963, Yale University.
- VIRGILIO GAVILONDO (1963), *Instructor in Modern Languages*
LL.D., 1947, University of Havana.
- YVONNE LOUISE GIEM (1964), *Instructor in English*
B.A., 1961, Memphis State University; M.A., 1964, University of Arkansas.
- NOEL GILBERT, *Adjunct Professor of Violin*
Student of Joseph Henkel, Scipione Guidi; Conductor, Memphis Concert Orchestra.
- WILLIAM R. GILLASPIE (1961), *Associate Professor of History*
B.A., 1952, Westminster College; M.A., 1954, University of Missouri; Ph.D., 1961, University of Florida.
- JOHN RAMSEY GORDON (1947), *Professor of Sociology*
B.A., 1929, M.A., 1932, Baylor University; Ph.D., 1951, University of Texas.
- FRANK H. GOVAN (1956), *Professor of Art*
B.A., 1938, Hendrix College; M.A., 1951, Columbia University.
- ROBERT B. GRAY (1965), *Assistant Professor of Secretarial Science*
B.S., 1954, M.S., 1958, University of Southern Mississippi.
- EDWARD VINCENT HACKETT (1962), *Assistant Professor of Psychology*
B.S., 1952, M.S., 1954, St. Louis University.
- ELAINE MARSHA HALTZMAN (1965), *Instructor in Health and Physical Education*
B.A., 1965, Butler University.
- DOUGLAS E. HAMILTON (1966), *Captain, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1960, University of Alabama.
- GRACE DANFORTH HAMPTON (1964), *Instructor in English*
B.S., 1925; M.A., 1930, University of Illinois.
- MARY VIRGINIA HARE (1963), *Assistant Professor of English*
B.A., 1940, Mount Holyoke College; M.A., 1951, Ph.D., 1960, University of Virginia.
- GEORGE JONES HARRIS (1947), *Professor of Music*
B.A., 1936, Greenville College; M.M., 1947, Northwestern University.
- MICHAEL J. HARVEY (1966), *Assistant Professor of Biology*
B.S., 1958, Eastern Illinois University; M.A., 1962, Stephen F. Austin State College.
- ZAFRUL M. HASAN (1964), *Assistant Professor of Sociology*
B.A., 1951, Panjab University; M.A., 1959, Louisiana State University.

- BARBARA SHORT HASKEW (1965), *Assistant Professor of Economics*
B.S., 1962, University of Tennessee.
- RALPH L. HATLEY (1947), *Professor of Health and Physical Education*
B.S., 1936, M.S., 1950, University of Tennessee.
- GABE C. HAWKINS (1962), *Assistant Professor of Industrial Technology*
B.S., 1940, Mississippi State College; B.S., 1949, U.S.A.F. Institute of Technology; M.A., 1962, Memphis State University.
- HERSCHEL MOORE HAYES (1952), *Associate Professor of Chemistry*
B.S., 1949, Middle Tennessee State College; M.A., 1950, George Peabody College.
- VELMA BROOKS HEATHERLY (1932), *Professor of French*
B.S., 1928, M.A., 1932, George Peabody College.
- MYLO L. HEEN (1961), *Instructor in Mathematics*
B.S., 1938, University of North Dakota; M.S., 1961, Purdue University.
- CHARLES S. HENDERSON (1963), *Assistant Professor of Sociology*
B.A., 1952, Vanderbilt University; M.A., 1953, George Peabody College.
- EMMA CLAIRE HENRY (1965), *Assistant Professor of Education*
B.S., 1952, M.A., 1953, Memphis State University.
- HERBERT ALLEN HERMANN (1957), *Associate Professor of Music*
B.Mus., 1951, M.Mus., 1953, D.Mus., 1962, Indiana University.
- JAMES CAROL HERTTER (1966), *Instructor in Art*
B.F.A., 1964, M.F.A., 1966, University of Illinois.
- *FLOYD RUBIN HERZOG (1961), *Instructor in Speech and Drama*
B.S., 1959, Memphis State University; M.S., 1962, Purdue University.
- TRUEL DWIGHT HICKS (1966), *Assistant Professor of Accountancy*
B.S., 1954, M.B.A., 1960, University of Southern Mississippi.
- GEORGE ALEXANDER HINSLEY (1965), *Instructor in Industrial Technology*
B.S.M.E., 1964, University of Tennessee.
- JOHN R. HIRSCHMANN (1955), *Assistant Professor of Industrial Technology*
B.S., 1953, Memphis State University; M.A., 1958, George Peabody College.
- GEORGE GLYN HITT (1966), *Instructor in Industrial Technology*
B.S., 1960, M.Ed., 1966, Mississippi State University.
- JAMES CLIFFORD HODGETTS (1965), *Professor of Management*
B.S., 1948, University of Kentucky; M.A., 1949, University of Louisville; Ph.D., 1954, University of North Dakota.

*On leave of absence, 1966-1967

- B. JAMES HOGGATT (1962), *Assistant Professor of Physical Education*
B.S., 1953, M.A., 1962, Memphis State University.
- S. THOMAS HOLBROOK (1966), *Assistant Professor of Economics*
B.S.-B.A., 1958, M.B.A., 1961, University of Arkansas.
- HARRIS BUTLER HOLLINGSWORTH (1965), *Instructor in Biology*
B.S., 1963, Memphis State University; M.S., 1965, Auburn University.
- WILLIAM SLATER HOLLIS (1961), *Assistant Professor of Management*
B.S.B.A., 1952, LL.B., 1958, University of Arkansas; M.A., 1962, Memphis State University.
- ELMORE HOLMES (1947), *Professor of Chemistry*
B.S., 1922, Princeton University; M.A., 1926, Columbia University; Ph.D., 1947, University of Tennessee.
- CHARLES HILTON HOPPER (1966), *Instructor in Industrial Technology*
B.S., 1955, M.S., 1956, Florida State University.
- EDWARD EVANS HOSKINS (1965), *Assistant Professor of Management*
B.A., 1939, University of Kansas; LL.B., 1949, Southern Law School; M.A., 1965, Memphis State University.
- RAY SMALLEY HOUSE (1963), *Associate Professor of Marketing*
B.S., 1950, Union University; M.B.A., 1962, Ph.D., 1966, University of Mississippi.
- DOUGLAS TURNER HOWARD, JR. (1966), *Instructor in English*
B.S., 1964, University of Southern Mississippi; M.A., 1966, San Francisco State College.
- ELMO H. HOWELL (1957), *Associate Professor of English*
B.A., 1940, University of Mississippi; M.A., 1948, Ph.D., 1955, University of Florida.
- GOLDEN LEON HOWELL (1961), *Associate Professor of Biology*
B.S., 1950, M.S., 1954, Ph.D., 1959, University of Alabama.
- HENRY KORB HOYT (1965), *Instructor in Management*
LL.B., 1937, Vanderbilt University; B.A., 1964, M.B.A., 1965, Memphis State University.
- CHARLES E. HUFFMAN (1963), *Captain, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1954, East Carolina College; M.A., 1966, Memphis State University.
- MELVIN A. HUMPHREYS (1962), *Assistant Professor of Health and Physical Education*
B.S., 1959, B.S., 1961, University of Tennessee; M.A., 1962, Memphis State University.

- EDWARD EVERHART HUNT (1965), *Assistant Professor of Management*
B.A., 1948, M.P.A., 1949, New York University.
- FORREST JACK HURLEY (1966), *Instructor in History*
B.A., 1962, Austin College; M.A., 1966, Tulane University.
- CHARLES CARROLL IJAMS (1947), *Professor of Physics*
B.A., 1936, Union University; M.S., 1937, Ph.D., 1941, Vanderbilt University.
- FLORENCE V. ILLING, R.N. (1951), *Assistant Professor of Health and Physical Education and Director of Health Services*
G.N., 1936, Medical College of South Carolina; B.S., 1950, George Peabody College; M.A., 1953, Memphis State University.
- WILLIAM ROBERT INGRAM (1957), *Assistant Professor of Marketing*
B.S., 1956, Arkansas Polytechnic College; M.B.A., 1957, University of Arkansas
- GENE G. JAMES (1964), *Assistant Professor of Philosophy*
B.A., 1959, Wake Forest College.
- JAKE JENKINS (1963), *Major, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1949, University of Arkansas.
- RIENZI WILSON JENNINGS (1951), *Professor of Secretarial Science and Office Management*
B.S., 1927, State University of Iowa; M.A., 1928, Ph.D., 1949, University of Kentucky.
- CHARLES ARTHUR JENS (1965), *Professor of Law*
B.A., 1930, LL.B., 1935, University of Michigan
- RONALD JERIT (1966), *Assistant Professor of Speech and Drama*
B.A., 1956, M.A., 1958, University of Illinois.
- ALBERT EDWARD JOHNSON (1966), *Professor of Speech and Drama*
B.A., 1934, M.A., 1936, University of Virginia; Ph.D., 1948, Cornell University.
- DANA DOANE JOHNSON (1954), *Professor of Art*
B.A., 1937, Dartmouth; M.Ed., 1947, Ed.D., 1954, Boston University.
- GLENN ALBERT JOHNSON (1956), *Assistant Professor of Health and Physical Education*
B.A., 1924, Huntington College; M.A., 1930, Columbia University.
- LEE R. JOHNSON (1966), *Assistant Professor of History*
B.A., 1949, Harvard University; M.A., 1955, American University of Beirut.
- SAM HOWARD JOHNSON (1949), *Professor of Education; Dean of The School of Education*
B.S., 1931, Memphis State University; M.A., 1939, Columbia University; Ed.D., 1954, New York University.

- VIRGINIA LEE JOHNSON (1940), *Associate Professor of Secretarial Science and Office Management*
B.S., 1930, Memphis State University; M.S., 1944, University of Tennessee.
- DONALD PETER JOHNSTON (1966), *Associate Professor of Education*
B.A., 1955, St. John's University; M.A., 1957, Ed.D., 1962, New York University.
- ELLIOTT ANNA JONES (1963), *Instructor in English*
B.A., 1960, Millsaps College; M.A., 1962, University of Arkansas.
- GENE K. JONES (1966), *Associate Professor of Management*
B.S., 1956, M.S., 1961, University of Alabama; Ph.D., 1964, University of Texas.
- PRASAD KADABA (1965), *Professor of Engineering*
B.S., 1943, M.S., 1944, University of Mysore; M.S., 1947, California Institute of Technology; Ph.D., 1949, University of California at Los Angeles.
- BERKLEY KALIN (1966), *Assistant Professor of History*
B.A., 1956, Washington University; M.A., 1960, Ph.D., 1967, St. Louis University.
- HELEN H. KALTENBORN (1946), *Assistant Professor of Mathematics*
B.A., 1931, Barnard College; M.A., 1934, Columbia University; Ph.D., 1934, University of Michigan.
- HOWARD S. KALTENBORN (1946), *Professor of Mathematics*
B.S., 1928, Carnegie Institute of Technology; M.S., 1931, Ph.D., 1934, University of Michigan.
- ROBERT HARRELD KARRAKER (1961), *Associate Professor of Chemistry*
B.A., 1953, Southern Illinois University; Ph.D., 1961, Iowa State University.
- KEITH SEVIER KAYS (1966), *Instructor in Art*
B.Arch., 1966, Auburn University.
- GLADYS MARIE KEETON (1964), *Instructor in Health and Physical Education*
B.S., 1964, Northwestern State College of Louisiana.
- FREDERIC HARTWELL KELLOGG (1964), *Professor of Engineering; Dean of The Herff School of Engineering*
Geol.E., 1927, Colorado School of Mines; M.A., 1929, Ph.D., 1934, Johns Hopkins University.
- LEO JAY KELLY (1965), *Associate Professor of Education*
B.S.Ed., 1950, Nebraska State College; M.A., 1952, Ed.D., 1960, Colorado State College.
- CHARLES FRANCIS KEMPSTER (1964), *Instructor in Speech and Drama*
A.B., 1954, A.M., 1959, St. Louis University.

- MONTE RAY KENASTON (1966), *Assistant Professor of Sociology*
B.S., 1957, University of Texas; M.A., 1966, Washington State University.
- JAMES KEITH KENNEDY (1965), *Associate Professor of Speech and Drama and Director of University Theatre*
B.A., 1957, Southwest Texas State College; M.A., 1958; Ph.D., 1963, University of Florida.
- WILLIAM ERNEST KING (1966), *Instructor in English*
B.S., 1964, Memphis State University; M.A., 1966, University of Washington.
- HOWARD GRADEN KIRSKEY (1965), *Assistant Professor of Chemistry*
B.S., 1961, Middle Tennessee State College; Ph.D., 1966, Auburn University.
- RICHARD HARWOOD KNOWLES (1966), *Assistant Professor of Art*
B.A., 1956, Northwestern University; M.A., 1961, Indiana University.
- FLORENCE PHYFER KRAUSE (1957), *Instructor in English*
B.A., 1951, M.A., 1953, University of Mississippi.
- IRL BROWN KRAUSE (1957), *Associate Professor of Education*
B.A., 1944, Westminster College; M.A., 1949, Ed.D., 1954, University of Mississippi.
- ZELMA W. KUBIK (1963), *Instructor in English*
B.S., 1936, University of Missouri; M.A., 1961, Memphis State University.
- EDWIN MURRAY LABOUNTY (1962), *Associate Professor of Music*
A.B., 1948, Yankton College; B.M., 1951, M.M., 1952, Mus.D., 1962, Indiana University.
- SHIRLEY LEE LAND (1963), *Assistant Professor of Psychology*
B.A., 1959, Coker College; M.A., 1961, Vanderbilt University.
- ROGER STEVEN LANGDON (1965), *Instructor in Art*
B.S., 1963, East Tennessee State University; M.F.A., 1965, Florida State University.
- VIRGINIA WEBB LANGDON (1966), *Instructor in English*
B.A., 1937, University of California; M.A., 1966, San Diego State College.
- AMELIA S. LARD (1965), *Assistant Professor of Secretarial Science*
B.S., 1956, M.A., 1957, University of Southern Mississippi.
- LONNIE DELMER LARD (1965), *Assistant Professor of Management*
B.S., 1957, M.S., 1963, University of Southern Mississippi.
- FREDERIC O. LARRABEE (1954), *Professor of Management*
B.A., 1927, LL.B., 1930, State University of Iowa.
- BETTE C. LATTA (1966), *Instructor in English*
B.S., 1964, M.A., 1965, Memphis State University.

- JOSEPH STANLEY LAYNE (1965), *Assistant Professor of Biology*
B.S., 1959, Marshall University; M.S., 1961, University of Arkansas;
Ph.D., 1964, University of Mississippi Medical Center.
- FRANK CRAGG LEEMING (1963), *Associate Professor of Psychology*
B.S., 1958, University of Illinois; M.A., 1961, Ph.D., 1963, University of
Mississippi.
- DAVID E. LEMASTER (1966), *Captain, United States Air Force;*
Assistant Professor of Aerospace Studies
B.A., 1958, Oklahoma State University.
- *GEORGE B. LEON (1962), *Assistant Professor of History*
A.B., 1956, M.A., 1957, Ph.D., 1961, University of Georgia.
- WILLIAM BRUCE LINCOLN (1966), *Assistant Professor of History*
B.A., 1960, College of William and Mary; Ph.D., 1966, University of
Chicago.
- SUSANNAH MILLER LLOYD (1966), *Instructor in Sociology*
B.A., 1963, Florida State University; M.A., 1966, University of Oregon.
- LOWELL ALVIN LOGAN (1965), *Professor of Biology*
B.A., 1943, Henderson State Teachers College; M.S., 1947, University
of Arkansas; Ph.D., 1959, University of Missouri.
- CHARLES E. LONG (1957), *Professor of English and Germanic*
Philology
B.A., 1951, Henderson State Teachers College; M.A. (English), 1955;
M.A. (German), 1956; Ph.D., 1963, University of Arkansas.
- LEON DUPRÉ LONG (1964), *Assistant Professor of Journalism*
B.S., 1958, East Texas State College; M.A., 1961, University of Missouri.
- FRANKLIN CORDELL LOWE (1966), *Assistant Professor of Account-*
ancy
B.B.A., 1959, M.B.A., 1960, University of Mississippi; C.P.A., 1965,
Mississippi.
- PAUL RUSSELL LOWRY (1963), *Associate Professor of Management*
and Acting Director, Division of Research and Services
B.S., 1941, M.B.A., 1959, Texas A. and M. University.
- FREDERICK LUBRANI (1962), *Associate Professor of Music*
B.S., 1939, University of Cincinnati; Diploma in Clarinet, 1939, Cincin-
nati Conservatory of Music; M.M., 1946, Cincinnati Conservatory of
Music.
- THALIA JOYCE LUCKEY (1966), *Instructor in English*
B.A., 1963, M.A., 1965, University of Georgia.
- JAMES ROGER LUDWIG (1966), *Instructor in Speech and Drama*
B.S., 1963, State University of New York at Fredonia; M.S., 1965,
Syracuse University.
- MICHAEL BURKE LUPFER (1964), *Assistant Professor of Psychology*
B.A., 1959, Southwestern at Memphis; M.S., 1963, Ph.D., 1964, Univer-
sity of Miami.

* On leave of absence, 1966-1967

- DANIEL WILLIS LYNCH (1966), *Associate Professor of Economics*
B.A., 1950, University of Notre Dame; M.A., 1956, Fordham University;
Ph.D., 1965, University of Kentucky.
- RAYMOND MARTIN LYNCH (1966), *Associate Professor of Music*
B.S., 1953, Davidson College; M.M., 1957, D.M., 1965, University of
Michigan.
- WILMER EVERETT MACNAIR (1966), *Associate Professor of Sociology*
B.A., 1953, Park College; M.S., 1960, Ph.D., 1965, University of
Wisconsin.
- PAUL MAHAR (1966), *Instructor in Health and Physical Education*
B.S., 1965, M.S., 1966, Memphis State University.
- HARRY RICHARD MAHOOD (1964), *Associate Professor of Political
Science*
B.A., 1951, M.A., 1952, University of Oklahoma; Ph.D., 1960, Univer-
sity of Illinois.
- RAMONA MADSON MAHOOD (1964), *Instructor in Education*
B.S., 1955, Utah State University; M.S., 1959, University of Illinois.
- STEPHEN D. MALIN (1964), *Assistant Professor of Speech and
Drama*
B.A., 1957, Pennsylvania State University; M.A., 1962, University of
Florida.
- HERBERT JOHN MARKLE (1951), *Professor of Economics; Dean of
The School of Business Administration*
B.B.A., 1932, University of Minnesota; M.A., 1949, Ph.D., 1951, State
University of Iowa.
- IRMA GREER MARKS (1944), *Assistant Professor of Chemistry*
B.S., 1944, Memphis State University; M.S., 1950, University of Ar-
kansas.
- ROBERT HERMAN MARSHALL (1960), *Associate Professor of Chem-
istry*
B.S., 1947, M.S., 1950, Illinois State Normal University; Ph.D., 1954,
University of Illinois.
- WILLIAM RAY MARTY (1965), *Assistant Professor of Political Science*
B.A., 1960, University of Oklahoma; M.A., 1964, Duke University.
- JAMES S. MATTHEWS (1949), *Professor of Geography*
B.S., 1936, M.A., 1941, Kent State University; Ph.D., 1949, University
of Chicago.
- JERRY BOB MATTHEWS (1965), *Instructor in English*
B.A., 1960, M.A., 1966, Baylor University.
- ETHEL TAYLOR MAXWELL, *Adjunct Professor of Voice*
B.A., 1939, Southwestern at Memphis; M.A., 1956, Memphis State
University.

JAMES EUGENE MCALPIN (1961), *Assistant Professor of Industrial Technology*

B.S., 1957, Memphis State University; M.A., 1959, George Peabody College.

SARAH PATRICIA MCAULEY (1966), *Instructor in English*

B.S., 1958, M.A., 1966, Memphis State University.

ROBERT EDWARD MCAULEY (1965), *Assistant Professor of French*

B.A., 1959, M.A., 1962, Harding College; Dr. de l'Université, 1964, University of Toulouse.

ELNA BROWNING MCBRIDE (1946), *Associate Professor of Mathematics*

B.S., 1930, M.S., 1931, University of Tennessee; Ed.D. in Mathematics, 1966, University of Michigan.

G. MICHAEL MCCARTHY (1966), *Instructor in History*

B.A., 1962, Regis College; M.A., 1964, University of Denver.

KENDALL LEE McDONALD (1965), *Instructor in Mathematics*

B.A., 1962, M.S., 1964, Southern Illinois University.

JOE ALBERT MCEACHERN (1962), *Instructor in Mathematics*

B.S., 1931, University of Tennessee; M.S., 1961, The George Washington University.

MAURICE CRAWFORD MCGEE (1966), *Assistant Professor of Physics*

B.S., 1962, Memphis State University; M.A., 1965, College of William and Mary.

ROBERT W. MCGOWAN (1949), *Associate Professor of Biology*

B.A., 1946, Lambuth College; M.A., 1947, George Peabody College.

CHARLES HARRISON MCNUTT (1964), *Associate Professor of Anthropology*

B.S., 1950, University of the South; M.A., 1954, University of New Mexico; Ph.D., 1960, University of Michigan.

SHIRLEY WILKES MCRAE (1966), *Instructor in Music*

B.S., 1954, Texas Woman's University; M.A., 1965, M.Ed., 1966, Memphis State University.

NANCY CAROLYN MICHAEL (1966), *Instructor in English*

B.S., 1964, Mississippi State College for Women; M.A., 1965, University of Virginia.

HARRY EUGENE MINETREE (1964), *Assistant Professor of English*

B.A., 1959, Vanderbilt University; M.F.A., 1962, University of Iowa.

HUBERT LEE MINTON, JR. (1965), *Assistant Professor of Mathematics*

B.A., 1955, M.A., 1961, University of Texas.

J. PAUL MITCHELL (1965), *Assistant Professor of History*

B.A., 1959, Knox College; M.A., 1960, Ph.D., 1966, University of Denver.

- KELL FREEMAN MITCHELL, JR. (1963), *Assistant Professor of History*
B.A., 1957, M.A., 1960, Ph.D., 1966, University of Georgia.
- JAMES ALEXANDER MONTGOMERY (1962), *Instructor in Biology*
B.S., 1960, M.A., 1962, Memphis State University.
- JOE ARTHUR MOORE (1963), *Associate Professor of Law*
B.A., 1948, Oklahoma State University; LL.B., 1949, University of Oklahoma; LL.M., 1963, Southern Methodist University.
- NELLE ELIZABETH MOORE (1956), *Assistant Professor of Education*
B.A., 1930, Lambuth College; M.A., 1946, Duke University.
- ROBERT EDWARD LEE MORGAN (1965), *Assistant Professor of Accountancy*
B.B.A., 1963, M.A., 1965, Memphis State University.
- SAM BURGE MORGAN (1965), *Assistant Professor of Psychology*
B.S., 1959, Memphis State University; M.A., 1962, Ph.D., 1964, University of Arkansas.
- PHILLIP STEVEN MORRIS (1966), *Associate Professor of Art*
B.A., 1960, B.S. (Arch.), 1961, Rice University; M.F.A., 1963, Princeton University.
- JEAN ANTOINE MORRISON (1964), *Assistant Professor of German*
B.A., 1959, Millsaps College; M.A., 1960, University of Mississippi; Ph.D., 1963, Tulane University.
- MARKESAN MORRISON (1965), *Instructor in English*
B.A., 1959, Southwestern at Memphis; M.A., 1962, University of Mississippi.
- *EDWARD NEWTON MOSLEY (1962), *Instructor in Mathematics*
B.A., 1960, Arkansas College; M.S., 1962, University of Arkansas.
- JUDITH STUART MUHLHEIZLER (1966), *Instructor in English*
B.A., 1965, Catawba College; M.A., 1966, University of North Carolina.
- BELA MUKHOTI (1966), *Assistant Professor of Economics*
B.A., 1950, M.A., 1953, University of Calcutta; Ph.D., 1964, University of London.
- SANTIRANJAN MUKHOTI (1966), *Assistant Professor of Mathematics*
B.Sc., 1947, M.Sc., 1952, University of Calcutta; Ph.D., 1965, University of London.
- BILLY J. MURPHY (1947), *Instructor in Health and Physical Education*
B.S., 1946, Mississippi State University.
- JAMES E. MUSKELLEY (1964), *Assistant Professor of Spanish*
B.A., 1949, M.A., 1950, University of Mississippi.

*On leave of absence, 1966-1967

- JOHN MILLEDGE NAIL (1962), *Instructor in English*
B.A., 1955, Southwestern at Memphis; M.A., 1961, Tulane University.
- CHARLES H. NASH (1961), *Instructor in Anthropology; Director of Chucalissa Museum*
B.A., 1932, Beloit College.
- ARTHUR RAY NAVE (1965), *Instructor in Art*
B.Arch., 1965, Auburn University.
- DELBERT P. NAVE (1950), *Assistant Professor of Art*
B.Ed., 1934, Eastern Illinois University; M.A., 1939, Ohio State University.
- WALTER LOUIS NELMS (1964), *Associate Professor of Education*
B.A., 1954, M.A., 1959, Harding College; Ed.D., 1964, University of Mississippi.
- REX A. NELSON (1966), *Associate Professor of Industrial Technology*
B.S., 1957, M.S., 1958, Fort Hays Kansas State College; Ed.D., 1964, Colorado State College.
- EMIL CHARLES NEMITZ (1954), *Assistant Professor of Chemistry*
B.S., 1922, University of Illinois; M.A., 1955, Memphis State University.
- WAYNE E. NEWKIRK (1965), *Professor of Economics*
B.A., 1956, M.S., 1957, Oklahoma State University; Ph.D., 1965, Louisiana State University.
- CHARLES HOWARD NEWTON (1963), *Professor of Sociology*
B.A., 1956, M.A., 1958, University of Nebraska; Ph.D., 1962, Florida State University.
- ELBERT F. NOTHERN (1958), *Professor of Education*
B.S.E., 1947, University of Arkansas; Ed.M., 1949, Harvard University; Ed.D., 1953, University of Arkansas.
- LEWIS B. O'KELLY (1962), *Assistant Professor of Physics*
B.S., 1957, Memphis State University; M.S., 1960, Vanderbilt University.
- *MARCUS W. ORR (1959), *Associate Professor of History*
B.A., 1952, Southwestern at Memphis; M.A., 1956, Ph. D., 1958, University of Illinois.
- MICHAEL McDONALD OSBORN (1966), *Associate Professor of Speech and Drama*
B.A., 1958, M.A., 1959, University of South Carolina; Ph.D., 1963, University of Florida.
- GEORGE D. OSBORNE (1966), *Assistant Professor of Music*
B.M., 1960, Oklahoma City University; M.M., 1964, Indiana University.
- WILLIAM ROBERT OSBORNE (1955), *Professor of English*
B.A., 1948, Ouachita College; M.A., 1949, Ph.D., 1955, George Peabody College.

*On leave of absence, 1966-1967

- BETTY HULL OWEN (1959), *Assistant Professor of Health and Physical Education*
B.S., 1956, Memphis State University; M.P.E., 1960, Purdue University.
- ROY LAYTON OWENS (1963), *Instructor in Art*
M.F.A., 1961, Los Angeles County Art Institute.
- WILLIAM HOWARD PAGE (1962), *Instructor in English*
B.S., 1956, Middle Tennessee State College; M.A., 1957, George Peabody College.
- GEORGE WILSON PARCHMAN (1951), *Associate Professor of Biology*
B.S., 1948, M.A., 1949, George Peabody College.
- LEA GIBBS PARK (1954), *Associate Professor of Speech and Drama*
B.S., 1956, M.A., 1957, Memphis State University; Ph.D., 1966, Northwestern University.
- MAURICE ALFRED PARKINSON (1962), *Associate Professor of French*
B.A., 1927, Erskine College; M.A., 1944, George Peabody College; Ph.D., 1954, University of North Carolina.
- SHERMAN WILLIAM PARRY (1962), *Instructor in Mathematics*
B.S., 1940, Union College; M.S., 1962, Purdue University.
- RAYMOND J. PARSONS (1966), *Major, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1960, University of Louisville.
- JOHN WEST PATRICK (1962), *Instructor in Health and Physical Education*
B.S., 1942, M.Ed., 1950, Mississippi State University.
- HERMAN F. PATTERSON (1955), *Assistant Professor of Secretarial Science and Office Management*
B.S., 1949, Berea College; M.A., 1954, University of Kentucky.
- CARL LOFSTROM PAUL (1965), *Instructor in History*
B.S., 1952, M.A., 1952, University of Houston.
- VIRGINIA RUTH PEARCE (1965), *Instructor in English*
B.A., 1959, Union University; M.A., 1963, University of Mississippi.
- C. EDWIN PEARSON (1966), *Professor of Distributive Education*
B.Ed., 1940, Illinois State University; M.S., 1944, University of Illinois.
- CARROLL L. PELL (1961), *Professor of French*
B.A., 1927, Mississippi College; M.A., 1933, George Peabody College; Ph.D., 1949, University of Wisconsin.
- JOHN JOSEPH PEPIN (1964), *Instructor in Management*
B.B.A., 1962, M.B.A., 1964, Memphis State University.
- JAMES ASHBROOK PERKINS (1965), *Instructor in English*
B.A., 1963, Centre College; MA., 1965, Miami University.

- ALFRED EUGENE PERRY (1965), *Assistant Professor of Biology*
B.A., 1953, M.A., 1958, Walla Walla College; Ph.D., 1965, Oklahoma State University.
- RONALD L. PERSKY (1965), *Instructor in Mathematics*
B.S., 1961, Purdue University; M.A., 1965, University of Cincinnati.
- ELIZABETH CROW PHILLIPS (1953), *Professor of English*
B.A., 1928, Maryville College; M.A., 1949, Ph.D., 1953, University of Tennessee.
- MILTON W. PHILLIPS, JR. (1966), *Assistant Professor of Education*
B.S., 1950, M.A., 1964, Memphis State University.
- WILLIAM SEATON PHILLIPS (1965), *Instructor in Management*
B.S.B.A., 1948, Washington University; M.B.A., 1965, Memphis State University.
- JOSEPH NEWTON PINSON, JR. (1965), *Instructor in Biology*
B.S., 1962, Furman University; M.A., 1965, Vanderbilt University.
- EDWARD F. PIRRERA (1965), *Instructor in English*
B.A., 1963, LeMoyne College (Syracuse); M.A., 1956, University of Michigan.
- MARY ELLEN PITTS (1965), *Instructor in English*
B.S., 1960, Florence State College; M.A., 1962, University of Florida.
- JANIE G. POODRY (1963), *Instructor in Art*
B.S., 1946, M.A., 1948, Texas Woman's University.
- MEREDITH POOLE (1955), *Assistant Professor of Mathematics*
B.A., 1950, M.A., 1955, University of Mississippi.
- JOSEPH ANTHONY PORTERA (1966), *Instructor in Sociology*
B.A., 1964, M.A., 1966, Mississippi State University.
- KIRBY MARION POST (1965), *Instructor in English*
B.A., 1953, University of Texas; M.A., 1965, Texas Christian University.
- LARRY HOLMES POTTER (1952), *Assistant Professor of Mathematics*
B.A.E., 1943, M.A., 1949, University of Florida.
- MARTHA ANN POWELL (1966), *Instructor in Biology*
B.S., 1963, M.S., 1966, Memphis State University.
- MERRILL MOSELEY POWELL (1966), *Assistant Professor of Education*
B.A., 1946, University of Richmond; M.A., 1963, Ed.D., 1966, University of Alabama.
- MINNIE MCRAE POWELL (1958), *Assistant Professor of Education*
B.S., 1942, Memphis State University; M.A., 1949, University of Tennessee.
- ROBERT J. PRENDEVILLE (1959), *Associate Professor of Speech and Drama*
B.A., 1942, University of New Mexico; M.A., 1946, Northwestern University.

- BEN FRANCIS PREWITT (1959), *Instructor in Mathematics*
B.S., 1936, U. S. Naval Academy; M.S., 1959, Purdue University.
- FRANKLIN SEARCY PRICE (1960), *Assistant Professor of Health and Physical Education*
B.S., 1957, M.A., 1959, Memphis State University.
- DOROTHY SPROLES PROVINE (1964), *Instructor in History*
B.A., 1959, Southern Methodist University; M.A., 1963, Louisiana State University.
- ISABEL R. PULLEN (1961), *Assistant Professor of French*
B.A., 1933, Mississippi State College for Women; M.A., 1957, University of Mississippi.
- JIMMY R. PULLEY (1963), *Assistant Professor of Management*
B.B.A., 1954, M.B.E., 1956, M.B.A., 1961, University of Mississippi.
- PEGGY LAJUAN PULLIAM (1964), *Assistant Professor of Art*
B.S., 1961, Memphis State University; M.A., 1964, Indiana University.
- FRANKLIN BLAINE RAINES (1966), *Assistant Professor of Education*
B.S., 1954, Lambuth College; M.A., 1957, Memphis State University.
- NOEL GEORGE RAPP (1954), *Associate Professor of Speech and Drama*
B.A., 1941, Kent State University; Ph.D., 1955, Purdue University.
- ABDEL RAZZAK MOHAMED RASHAD (1965), *Professor of Electrical Engineering*
B.Sc., 1953, M.Sc., 1957, Ph.D., 1960, Cairo University.
- BASIL RATIU (1960), *Associate Professor of French*
A.A., 1947, A.B., 1947, University of Chicago; A.M., 1949, Indiana University; Ph. D., 1960, Columbia University.
- SUZANNE GRETCHEN RAU (1966), *Instructor in English*
B.A., 1963, University of Mississippi; M.A., 1966, University of Rhode Island.
- MARGARET MYERS RAUHOF (1964), *Assistant Professor of Education*
A.B., 1935, Lynchburg College; M.A., 1951, Columbia University.
- FLORA HAYES RAWLS (1930), *Professor of Education; Dean of Women*
B.A., 1925, M.A., 1930, Vanderbilt University; LL.D., 1964, Lambuth College.
- LETICIA GAYLE RAYBURN (1966), *Associate Professor of Accountancy*
B.S., 1961, Murray State College; M.S., 1962, University of Mississippi; Ph.D., 1966, Louisiana State University; C.P.A., 1962, Mississippi, 1963, Louisiana.
- HENRY L. REEVES (1953), *Assistant Professor of Mathematics*
B.S., 1947, University of Alabama; M.A., 1951, George Peabody College.

- JOHN JOSEPH REID (1966), *Associate Professor of Economics*
B.A., 1955, University of Connecticut; Ph.D., 1962, University of Virginia.
- M. GENEVA REID (1961), *Instructor in English*
B.A., 1957, Alabama College; M.A., 1959, University of Tennessee.
- CHARLES E. REIGEL (1966), *Professor of Business Education*
B.S., 1949, M.Ed. 1950, University of Pittsburgh; Ed.D., 1960, University of Cincinnati.
- JOHN W. RICHARDSON (1959), *Professor of Education; Dean of The Graduate School*
B.S., 1931, Murray State College; M.Ed., 1939, Duke University; Ed.D., 1957, New York University.
- MYRTLE PARKE RICHARDSON (1959), *Instructor in Education; Director of Placement and Certification*
B.A., 1931, Murray State College.
- JAMES WILLIAM RICHENS (1966), *Instructor in Music*
B.S., 1958, Memphis State University; M.M., 1960, Eastman School of Music.
- JOSEPH HOWARD RIGGS (1955), *Associate Professor of Speech and Drama*
B.A., 1952, Alderson-Broadbudd; M.A., 1953, West Virginia University; Ph.D., 1962, University of Illinois.
- JOSEPH RAYMOND RILEY (1954), *Associate Professor of English*
B.S., 1949, Memphis State University; M.A., 1953, Ph.D., 1962, Vanderbilt University.
- THOMAS BEEBE RIPPY (1966), *Assistant Professor of Political Science*
B.A., 1960, Transylvania College; M.A., 1963, University of Kentucky.
- ELMA NEAL ROANE (1946), *Associate Professor of Health and Physical Education*
B.S., 1940, Memphis State University; M.S., 1943, University of Tennessee.
- CHARLES NELSON ROBINSON (1961), *Professor of Chemistry*
B.S., 1949, Maryville College; M.S., 1951, Ph.D., 1953, University of Tennessee.
- CLAYTON R. ROBINSON (1961), *Instructor in English*
B.A., 1959, Trinity University; M.A., 1960, Mississippi Southern College
- MARY MARGARET ROSS (1965), *Instructor in Art*
B.S., 1938, M.A., 1939, George Peabody College.
- WILLIAM TARVER ROUNTREE, JR. (1963), *Associate Professor of Law*
A.B., 1949, University of Alabama; LL.B., 1952, Harvard University.
- RAM MOHAN ROY (1965), *Assistant Professor of Political Science*
B.A., 1953, M.A., 1955, Osmania University; Ph.D., 1966, Claremont Graduate School.

- A. S. RUDOLPH (1945), *Professor of Biology*
B.S., 1924, Western Kentucky State Teachers College; M.S., 1929, University of Kentucky; Ph.D., 1938, Iowa State University.
- HEBER ELIOT RUMBLE (1946), *Professor of Education*
B.S., 1924, Oakland City College; M.A., 1933, Ph.D., 1943, University of Illinois.
- ROBERT S. RUTHERFORD (1963), *Major, United State Air Force; Assistant Professor of Aerospace Studies*
B.A., 1949, Arkansas College.
- LADA MOORE SANDS (1951), *Instructor in Home Economics*
B.S., 1939, M.A., 1957, Memphis State University.
- MARY HELEN SAWYER (1962), *Assistant Professor of Political Science*
B.B.A., 1957, M.A., 1958, Emory University; Ph.D., 1963, Cornell University.
- RITA SAWYER (1965), *Associate Professor of Education*
B.S., 1936, Massachusetts Teachers College; M.A., 1946, Columbia University; Ed.D., 1964, Syracuse University.
- FLORENCE PETERS SCHENKER (1965), *Instructor in English*
B.S., 1958, M.A., 1965, Memphis State University.
- FRANK B. SCHIRMER, JR. (1959), *Professor of Chemistry*
B.S., 1934, Clemson College; Ph.D., 1939, Cornell University.
- EUGEN SCHOENFELD (1965), *Assistant Professor of Sociology*
B.A., 1951, M.A., 1961, Washington University.
- STANLEY RAY SCHULTZ (1966), *Professor of Management*
B.A., 1951, Ohio Wesleyan University; M.S., 1957, Ph.D., 1960, Ohio State University.
- JUDITH SCHULZ (1965), *Instructor in Speech and Drama*
B.S., 1961, M.A., 1964, North Texas State University.
- JOHN EDWARD SCHWAIGER (1956), *Instructor in Chemistry*
B.S., 1940, M.A., 1960, Memphis State University.
- BLANCHE D. SCHWARTZ (1965), *Associate Professor of Art*
B.E., 1944, Moorhead State College; M.A., 1948, Northwestern University; Ed.D., 1964, Indiana University.
- ROBERT V. SCHWARTZ (1966), *Captain, United States Air Force; Assistant Professor of Aerospace Studies*
B.A., 1959, DePauw University.
- E. B. SCOTT, JR. (1955), *Associate Professor of Health and Physical Education*
B.A., 1947, M.A., 1948, Colorado State College of Education; H.S.D., 1953, P.E.D., 1954, Indiana University.

- LESLIE S. SCRUGGS, JR. (1965), *Assistant Professor of Economics*
B.B.A., 1963, Memphis State University; M.B.A., 1964, University of Chicago.
- PRADIP KUMAR SEN GUPTA (1966), *Assistant Professor of Geology*
B.Se., 1956, University of Calcutta; M.Se., 1958, Jadavpur University; M.Tech., 1960, Indian Institute of Technology; Ph.D., 1964, Washington University.
- WILLIAM RODRICK SEWELL (1966), *Assistant Professor of Psychology*
B.S., 1961, M.A., 1963, Memphis State University; Ph.D., 1967, University of Alabama.
- GEORGE WAYNE SHAMO (1965), *Assistant Professor of Speech and Drama*
B.S., 1962, Brigham Young University; M.S., 1963, Southern Illinois University.
- WILLIAM H. SHAW (1965), *Captain, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1955, Memphis State University.
- REGINALD W. SHEPHERD (1966), *Associate Professor of Business Education*
B.B.A., 1940, Niagara University; M.A., 1948, Ed.D., 1959, Stanford University.
- WADE HERBERT SIDES, JR. (1963), *Professor of Law*
B.S., 1952, Memphis State University; LL.B., 1955, Vanderbilt University; LL.M., 1956, Yale University.
- BILL AL SIMCO (1966), *Assistant Professor of Biology*
B.S., 1960, The College of the Ozarks; M.A., 1962, Ph.D., 1966, University of Kansas.
- NANCY DAVIS SIMCO (1966), *Instructor in Philosophy*
B.A., 1962, M.A., 1965, University of Kansas.
- PAUL RAYMOND SIMONTON (1955), *Assistant Professor of Biology*
B.S., 1955, M.A., 1961, Memphis State University.
- ROBERT JENNINGS SIMPSON (1964), *Instructor in Mathematics*
B.S., 1961, Middle Tennessee State College; M.A., 1963, University of Georgia.
- PAUL HARDEMAN SISCO (1947), *Professor of Geography*
B.S., 1934, Memphis State University; M.A., 1947, George Peabody College; Ph.D., 1954, University of Chicago.
- JANEIL SLAYDEN (1966), *Instructor in Physical Education*
B.S., 1960, North Texas State University; M.S., 1966, University of Colorado.
- JOHANNES SMIT (1960), *Associate Professor of Music*
B.S., 1948, M.S., 1949, Juilliard School of Music; Ph.D., 1953, Eastman School of Music, University of Rochester.

- ALFRED WINN SMITH (1954), *Professor of English*
B.A., 1933, M.A., 1934, Vanderbilt University; Ph.D., 1954, George Peabody College.
- A. EUGENE SMITH (1960), *Assistant Professor of Health and Physical Education*
B.S., 1949, Sterling College; M.S., 1954, Indiana University.
- JOHN C. SMITH (1965), *Colonel, United States Air Force, Professor of Aerospace Studies*
B.S., 1947, Michigan State University; M.A., 1963, George Washington University.
- LOUISE WOTRING SMITH (1965), *Instructor in Biology*
B.A., 1962, Elmira College; M.S., 1964, Johns Hopkins University.
- OMAR EWING SMITH (1961), *Associate Professor of Biology*
B.S., 1954, Memphis State University; M.S., 1958, Ph.D., 1961, Iowa State University.
- SHERREL C. SMITH (1966), *Assistant Professor of Chemistry*
B.S., 1959, Abilene Christian College; M.S., 1965, University of Tennessee.
- VINCENT DEE SMITH (1966), *Instructor in Biology*
B.S., 1964, M.S., 1966, Memphis State University.
- WALTER RHEA SMITH (1951), *Professor of English; Dean of The School of Arts and Sciences*
B.A., 1939, Lambuth College; M.A., 1940, Southern Methodist University; Ph.D., 1951, University of California.
- WILL DUNN SMITH (1960), *Associate Professor of Education*
B.A., 1938, M.A., 1939, Vanderbilt University; Ph.D., 1952, George Peabody College.
- ROBERT VICTOR SMYTHE (1963), *Instructor in German*
B.A., 1962, Memphis State University; M.A., 1963, University of Texas.
- ROBERT ANDREW SNYDER (1966), *Professor of Music*
B.S., 1950, M.S., 1951, University of Illinois; D.M., 1958, Indiana University.
- JOHN A. SOBOL (1949), *Associate Professor of Geography*
B.S., 1942, Massachusetts State Teachers College; M.A., 1949, Clark University; Ph.D., 1961, University of Michigan.
- HARRIS MCLEAN SORRELLE (1962), *Associate Professor of Art*
B.S., 1957, Memphis State University; M.F.A., 1959, University of Georgia.
- JAMES IRA SPARKS (1966), *Instructor in Mathematics*
B.S., 1964, Arkansas Polytechnic College; M.S., 1966, University of Arkansas.
- WILLIAM H. SPELL, JR. (1962), *Assistant Professor of Chemistry*
B.S., 1951, Memphis State University; M.S., 1953, University of Georgia; Ph.D., 1961, University of Arkansas.

ELIZABETH SUPPLEE SPENCER (1956), *Assistant Professor of Journalism*

B.A., 1937, Cornell University; B.J., 1940, M.A., 1941, University of Missouri.

JESSE WATSON SPICELAND (1949), *Professor of Accountancy*

B.S., 1947, Southern Illinois University; M.S.B.A., 1948, Washington University; C.P.A., 1951, Tennessee.

SILVIO JOSEPH SPIGOLON (1964), *Associate Professor of Engineering*

B.S.C.E., 1951, M.S., 1956, University of Mississippi; Ph.D., 1963, University of Illinois.

CHARLES ROBERT SPINDLER (1950), *Professor of Marketing*

B.S., 1939, Northeast Missouri State Teachers College; M.A., 1942, State University of Iowa.

JULIE WORTH SPRUNT (1957), *Assistant Professor of Psychology*

B.A., 1945, Mary Baldwin College; M.A., 1947, University of Virginia.

LOUIS CHARLES STAGG (1962), *Assistant Professor of English*

B.A., 1955, Louisiana College; M.A., 1957, Ph.D., 1963, University of Arkansas.

ANN JONES STAMM (1964), *Instructor in English*

B.S., 1960, M.A., 1963, Memphis State University.

DIFEE WILLIAM STANDARD (1962), *Assistant Professor of History*

A.B., 1950, M.A., 1952, Emory University.

DALE W. STEEN (1965), *Instructor in English*

B.A., 1958, Coe College; M.A., 1963, State University of Iowa.

PHYLLIS RUTH STEEN (1965), *Instructor in Music*

B.M.E., 1947, Drake University.

ROBERT LELAND STEERS (1965), *Assistant Professor of Political Science*

B.A., 1949, Marietta College.

RICHARD I. STEFF (1964), *Instructor of Music*

B.S., 1959, State University of New York; M.M., 1960, Eastman School of Music.

JANE STEGEMANN (1966), *Associate Professor of English*

B.A., 1950, M.A., 1951, Ph.D., 1961, University of Pennsylvania.

BOB FRANKLIN STEPHENSON (1962), *Instructor in Physical Education*

B.S., 1956, M.A., 1958, Memphis State University.

JANE BASKIN STONE (1966), *Instructor in English*

B.A., 1965, Southwestern at Memphis; M.A., 1966, Emory University.

REBECCA ANNE STOUT (1966), *Instructor in English*

B.A., 1965, Guilford College; M.A., 1966, University of North Carolina.

CALVIN MOORMAN STREET (1939), *Professor of Education*

B.S., 1939, Memphis State University; M.S., 1946, Ed.D., 1953, University of Tennessee.

- FRANCES LOUISE STREET (1957), *Assistant Professor of Mathematics*
B.S., 1940, Memphis State University; M.S., 1947, University of Tennessee.
- MIRIAM DECOSTA SUGARMON (1966), *Assistant Professor of Spanish*
B.A., 1956, Wellesley Colleg; M.A., 1960, Johns Hopkins University.
- HARRY HARMON SUMMER (1961), *Professor of Marketing*
B.B.A., 1958, Memphis State University; M.S., 1961, Ph.D., 1965, University of Illinois.
- HERMAN EUGENE TAYLOR (1956), *Associate Professor of Management*
B.A., 1940, LL.B., 1951, University of Mississippi; LL.M., 1955, New York University.
- LUCILLE BUTLER TAYLOR (1965), *Associate Professor of Education*
B.A., 1936, Duke University; M.A., 1948, Columbia University; Ed.D., 1964, Syracuse University.
- MINAPERLE TAYLOR, *Adjunct Professor of Voice*
B.A., 1923, M.M., 1925, Chicago Musical College.
- CHARLES E. TEMPLETON (1957), *Assistant Professor of Accountancy*
B.S., 1942, Mississippi State University; M.A., 1962, Memphis State University; C.P.A., 1954, Tennessee.
- ANDREW G. TERRY, JR. (1963), *Captain, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1955, Mississippi State University.
- JOHN B. THOMAS (1965), *Assistant Professor of Journalism*
B.S.B.A., 1955, University of Missouri; M.S., 1957, Oklahoma State University.
- JOHN Z. C. THOMAS (1965), *Instructor in History*
B.A., 1961, M.A., 1964, Tulane University.
- LOUISE FRISBY THOMAS (1966), *Instructor in Secretarial Science*
B.S., 1956, M.S., 1957, Oklahoma State University.
- PETER GETHIN THOMAS (1963), *Assistant Professor of Art*
B.F.A., 1958, M.A., 1959, University of Alabama.
- CHARLES LAMAR THOMPSON (1963), *Assistant Professor of Education*
B.A., 1956, M.Ed., 1958, Mississippi College; Ed.D., 1963, University of Southern Mississippi.
- JAMES THOMAS THOMPSON (1955), *Professor of Accountancy*
B.A., 1948, Murray State College; M.B.A., 1949, Indiana University; C.P.A., 1960, Tennessee.
- JULIA EUBANKS THOMPSON (1965), *Instructor in Home Economics*
B.S., 1955, M.A., 1957, University of Southern Mississippi.

- DONALD RICKHART THOMSEN (1966), *Associate Professor of Education*
B.Ed., 1943, MS.Ed., 1949, Illinois State University; Ed.D., 1956, University of Florida.
- JOHN OLIVER THOMSEN (1966), *Associate Professor of Physics*
B.A., 1951, Williams College; M.S., 1953, Ph.D., 1956, University of Illinois.
- CAROLYN THORPE (1964), *Instructor in Physical Education*
B.S., 1961, Longwood College; M.S., 1962, University of Tennessee.
- JAMES MCNELLY TODD (1966), *Associate Professor of Management*
B.S., 1956, Trinity University; M.B.A., 1957, Ph.D., 1966, University of Texas.
- WAYLAND A. TONNING (1956), *Professor of Marketing*
B.S., 1953, M.S., 1954, Ph.D., 1959, University of Illinois.
- SYLVIA L. TORBET (1963), *Assistant Professor of Education*
B.S., 1953, M.Ed., 1955, Louisiana State University; Ed.S., 1963, George Peabody College.
- MALRA CLIFFT TREECE (1957), *Assistant Professor of Secretarial Science and Office Management*
B.S., 1947, Arkansas State College; M.A., 1956, Memphis State University.
- AGNES ANNE TROTTER (1964), *Assistant Professor of History*
B.A., 1960, University of South Carolina; M.A., 1963, Ph.D., 1965, Duke University.
- BOBBY JOE TUCKER (1966), *Instructor in Journalism*
B.S., 1962, Arkansas State College; M.A., 1966, University of Mississippi.
- DAVID MILTON TUCKER (1965), *Assistant Professor of History*
B.A., 1959, College of the Ozarks; M.A., 1961, Oklahoma State University; Ph.D., 1965, University of Iowa.
- ELIJAH VANCE TURMAN (1965), *Instructor in Health and Physical Education*
B.S.Ed., 1960, University of Tennessee, Martin Branch; M.A.Ed., 1962, Morehead State College.
- ROBERT GILFORD TVEDT (1966), *Instructor in Mathematics*
B.S., 1954, Purdue University.
- ANTONIO SERAFIM VASCONCELLOS (1966), *Assistant Professor of Economics*
B.A., 1950, University of California; Ph.D., 1966, Tulane University.
- PHILIP HUGHES VAUGHAN (1965), *Instructor in History*
B.S., 1960, M.A., 1961, Memphis State University.
- BILLY JOE VAUGHAN (1966), *Instructor in Industrial Technology*
M.S., 1957, M.A., 1958, Memphis State University.

- MAURICE F. VAUGHN (1966), *Major, United States Air Force; Assistant Professor of Aerospace Studies*
B.S., 1952, East Texas State College.
- ROBERT N. VIDULICH (1966), *Professor of Psychology*
B.A., 1954, Hartwick College; M.A., 1956, Ph.D., 1958, Michigan State University.
- FESTUS JUSTIN VISER (1965), *Professor of Economics*
B.S., 1942, Memphis State University; M.S., 1949, M.B.A., 1952, Ph.D., 1958, New York University.
- WALTER WILSON WADE (1962), *Associate Professor of Music*
B.S., 1948, East Tennessee State College; M.Mus., 1950, Ph.D., 1958, Northwestern University.
- DAVID TUTHERLY WALKER (1955), *Associate Professor of Mathematics*
B.S., 1949, Wofford College; M.S., 1951, Ph.D., 1955, University of Georgia.
- LAURENCE GRAVES WALKER (1966), *Assistant Professor of Geology*
B.S., 1960, University of Texas; M.A., 1962, University of California.
- RICHARD A. WARD (1966), *Assistant Professor of Art*
B.S., 1958, Memphis State University; M.A., 1959, George Peabody College.
- FRANCIS ARTHUR WARNER (1966), *Assistant Professor of Education*
B.A., 1953, University of Redlands; M.A., 1964, Ed.D., 1966, Colorado State College.
- HERBERT WARTENBERG (1966), *Associate Professor of Education*
B.S., 1956, M.S., 1956, Ed.D., 1966, Temple University.
- ROY E. WATKINS (1957), *Professor of Classical Languages*
B.A., 1933, Luther College; M.A., (Classics), 1934; M.A., (German), 1952; Ph.D., (Classics), 1940, State University of Iowa.
- THAYER HOWARD WATKINS (1966), *Associate Professor of Economics*
B.S., 1961, Ph.D., 1965, University of Colorado.
- ROBERT FRANCIS WATSON (1963), *Assistant Professor of Chemistry*
B.A., 1958, College of Wooster; Ph.D., 1963, University of Tennessee.
- JAMES HAROLD WEATHERLY (1965), *Assistant Professor of Health and Physical Education*
B.S., 1957, M.Ed., 1960, Mississippi College.
- MARY JOAN WEATHERLY (1965), *Instructor in English*
B.A., 1957, M.A., 1960, Mississippi College.
- GEORGE ALLEN WESTLAND (1957), *Assistant Professor of Journalism*
B.J., 1949, M.A., 1957, University of Missouri.

- RICHARD HARRY WHALEN (1965), *Assistant Professor of Biology*
B.S., 1954, College of St. Thomas; M.S., 1956, University of Illinois,
Ph.D., 1965, Purdue University.
- MARY ALMA WHITAKER (1947), *Assistant Professor of Home Economics*
B.S., 1929, Memphis State University; M.S., 1941, University of Tennessee.
- BRADFORD WHITE (1948), *Professor of Speech and Drama*
B.A., 1934, University of North Carolina; M.F.A., 1939, Yale University.
- GERRY C. WHITE (1963), *Instructor in Industrial Technology*
B.S.-E.E., 1960, Christian Brothers College; M.S.-E.E., 1963, University of Tennessee.
- HELEN WHITE (1958), *Associate Professor of English*
B.A., 1935, Southwest Texas State Teachers College; M.A., 1950, Ph.D., 1958, George Peabody College.
- LONNIE J. WHITE (1961), *Associate Professor of History*
B.A., 1950, West Texas State College; M.A., 1955, Texas Technological College; Ph.D., 1961, University of Texas.
- MARTHA ANNA WHITE (1963), *Instructor in English*
B.A., 1962, M.A., 1963, University of Arkansas.
- WALTER E. WILHELM (1964), *Assistant Professor of Biology*
A.B., 1955, Harris Teachers College; M.S., 1959, University of Illinois;
Ph.D., 1964, Southern Illinois University.
- HARRY LEE WILKERSON (1966), *Instructor in English*
B.A., 1958, University of Colorado; M.A., 1965, University of Michigan.
- DANIEL RAY WILLBANKS (1965), *Instructor in English*
B.A., 1963, M.A., 1964, University of Alabama.
- HERBERT LEE WILLIAMS (1956), *Professor of Journalism*
B.A., 1940, Murray State College; M.A., 1941, University of Mississippi;
Ph.D., 1955, University of Missouri.
- RALPH WHITSON WILLIAMS (1966), *Associate Professor of Management*
B.S., 1958, Purdue University; M.B.A., 1961, University of Washington;
D.B.A., 1966, University of Oregon.
- WILLIAM ROBERT WILLIAMS (1961), *Instructor in English*
B.A., 1957, Lambuth College; M.A., 1961, Memphis State University.
- MAJOR LOYCE WILSON (1964), *Assistant Professor of History*
B.A., 1950, Vanderbilt University; M.A., 1953, University of Arkansas;
Ph.D., 1964, University of Kansas.
- ANNE McGEHEE WINE (1966), *Instructor in Spanish*
B.A., 1954, Southwestern at Memphis; M.A., 1956, State University of Iowa.
- ARTHUR PETER WINFREY, III (1966), *Instructor in Management*
B.S., 1955, United States Naval Academy.

- JOHN ALLEN WINFREY (1958), *Instructor in Mathematics*
B.S., 1926, U.S. Naval Academy; M.S., 1958, Memphis State University.
- BYRON HOOPER WISE (1964), *Assistant Professor of Biology*
B.S., 1950, M.S., 1953, Ph.D., 1962, University of Florida.
- CHARLES NEAL WISE (1966), *Assistant Professor of Speech and Drama*
B.S., 1960, Bradley University; Ph.D., 1966, University of Oklahoma.
- MARY WITT (1965), *Associate Professor of Education*
B.S., 1938, Memphis State University; M.A., 1942, Ed.D., 1954, George Peabody College.
- RICHARD FRANK WOLNY (1965), *Assistant Professor of Physics*
B.S.M.E., 1960, General Motors Institute; M.S., 1962, Texas Agricultural and Mechanical University.
- SEOK PIN WONG (1965), *Assistant Professor of Mathematics*
M.S., 1962, University of Delaware.
- RUTH G. WOODBURY (1953), *Instructor in History*
B.A., 1940, M.A., 1947, University of Mississippi.
- ALBERT HAINES WOOLLETT (1963), *Assistant Professor of Physics*
B.A., 1949, M.S., 1950, University of Mississippi; Ph.D., 1956, University of Oklahoma.
- ROSESTELLE BACH WOOLNER (1965), *Assistant Professor of Education*
B.S., 1958, M.A., 1960, Memphis State University; Ed.D., 1966, University of Tennessee.
- TZE SUN WU (1964), *Professor of Engineering*
B.S., 1941, National Chiao-Tung University; M.S., 1949, University of Washington; Ph.D., 1952, University of Illinois.
- LAWRENCE WYNN (1950), *Professor of English*
B.A., 1936, Emory University; M.A., 1940, Duke University; M.A., 1947, Ph.D., 1951, Princeton University.
- DAVID YELLIN (1964), *Assistant Professor of Speech and Drama*
B.A., 1937, Pennsylvania State University; M.A., 1963, Teachers College, Columbia University.
- LEE STRICKLEN YOUNG (1962), *Instructor in English*
B.A., 1952, Southern State College; M.A., 1956, University of Arkansas.
- KENNETH DAVIS YOUNT (1966), *Instructor in Music*
B.M., 1964, Stetson University.
- DANIEL LEONARD ZIEMBO (1965), *Instructor in Art*
B.F.A., 1963, M.F.A., 1965, University of Illinois.
- WILLIAM HENRY ZUBER, JR. (1966), *Assistant Professor of Chemistry*
B.S., 1960, Memphis State University; Ph.D., 1964, University of Kentucky.

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ASSOCIATE PROFESSORS CROUSE, KRAUSE, RIGGS, and RILEY

ASSISTANT PROFESSORS FITZPATRICK and STREET

Members whose terms expire May, 1968:

PROFESSORS BARTON, BOOM, BUELL, and MATTHEWS

ASSOCIATE PROFESSORS VIRGINIA LEE JOHNSON, McGOWAN,
and WILL DUNN SMITH

ASSISTANT PROFESSOR HIRSCHMANN

Members whose terms expire May, 1969:

PROFESSORS SUMMER and WYNN

ASSOCIATE PROFESSORS DAMERON, MCBRIDE, and SOBOL

ASSISTANT PROFESSOR PRICE

STANDING UNIVERSITY COMMITTEES

1967-1968

The President is a member of all committees; the first member named on each committee is the chairman. Appointments extend from September through August of the academic year.

ACADEMIC FREEDOM AND RESPONSIBILITY: Associate Professor McGowan; Professors Balls, Barton, and Carrier; Associate Professor Feisal.

ATHLETIC: Dean Robison, Dean McDaniel; Professors Coltharp and Larrabee; Associate Professors Dameron and Danley; Assistant Professor Corbet; Mr. Newport.

BUILDINGS AND GROUNDS: Professor Street; Associate Professors Brotherton and McGowan; Assistant Professor Alexander; Mr. Herzog.

DISCIPLINE: Dean Robison; Deans Rawls and McDaniel; Professors Newton and Hatley; Assistant Professor Shirley Land.

ENGLISH PROFICIENCY: Assistant Professor Cotham; Professors Osborne and Viser; Associate Professors Riley and Thompson.

ENTRANCE AND CREDITS: Dean Clark; Professors Rumble and Alfred Smith; Associate Professors Gillaspie and Spigolon; Assistant Professor Patterson.

EXTENSION: Professor Crader; Dean Clark; Professors Sam Johnson, Markle, and Walter Smith.

LIBRARY: Professor Boom; Professors Cariani, Brownlee, Viser, and Wynn; Associate Professor Marshall; Mr. Ellison Brown.

PUBLIC PROGRAMS: Dean Smith; Dean Rawls; Professors Ausprich and Snyder; Associate Professors Wade, Park, and Hermann; Mr. Robbins; Presidents of Tassel and Omicron Delta Kappa.

PRE-LAW ADVISORY: Professor Buell; Dean Cox; Professor L. W. Curbo; Associate Professor Lonnie White; Mr. Fred Collins.

PRE-MEDICAL ADVISORY: Professor Holmes; Associate Professor Omar Smith; Assistant Professors Spell, Cotham, and Simonton.

RELIGIOUS ACTIVITIES: Professor Spindler; Professor Evans; Assistant Professors Davis, Abbett, and Moore; Mr. David Collins.

SCHOLARSHIPS AND LOANS: Professor Tinning; Deans Rawls and McDaniel; Assistant Professors Sawyer and Powell; Mr. Morris Bass; Mr. Bannister.

STUDENT ELECTIONS: Dean Robison; Dean Rawls, Mr. David Collins, Mr. Bond.

STUDENT PUBLICATIONS: Professor Williams; Professors Thompson and Phillips; Associate Professors Rountree and Crouse; Mr. David Collins; President of Student Government.

TEACHER EDUCATION POLICY: Dean Johnson, *ex officio*; Professors Claypool, Coltharp, Hatley, Nothorn, Rumble, and Sisco; Associate Professor Fitzpatrick; Mrs. Richardson, *ex officio*.

THE UNIVERSITY CAMPUS SCHOOL

- GRADY G. WOODY (1958), *Principal*
B.S., 1951, Union University; M.S., 1958, Memphis State University.
- MARY ELIZABETH ANDERSON (1951), *Supervising Teacher, Third Grade*
B.S., 1947, Memphis State University; M.A., 1951, George Peabody College.
- DOROTHY SIMMONS DAUGHERTY (1958), *Supervising Teacher, First Grade*
B.S., 1952, M.A., 1956, Memphis State University.
- DONNA ELIZABETH EDDINS (1962), *Director of Kindergarten*
B.S., 1962, M.A., 1963, Memphis State University.
- SARAH LEE FOSTER (1955), *Supervising Teacher, Third Grade*
B.S., 1952, University of Tennessee; M.A., 1957, Memphis State University.
- ELBA GANDY (1946), *Supervising Teacher, Music*
B.M.E., 1944, Louisiana State University; M.M., 1946, Northwestern University.
- MILDRED MAY GRAGG (1949), *Supervising Teacher, Fifth Grade*
B.S., 1941, Memphis State University; M.A., 1948, George Peabody College.
- ANN AUSBAND HARMON (1966), *Supervising Teacher, Art*
B.A., 1953, Asbury College.
- FRANCES HICKS (1965), *Supervising Teacher, Fourth Grade*
B.S., 1953, Oglethorpe College; M.S., 1956, University of Georgia.
- PATRICIA F. HORTON (1964), *Supervising Teacher, Second Grade*
B.S., 1956, Delta State College; M.A., 1964, Memphis State University.
- ANNETTA SUE HUCKABEE (1966), *Supervising Teacher, Perceptually Handicapped*
B.S., 1963, M.A., 1964, Memphis State University.
- GEARY KRILL IRWIN (1959), *Supervising Teacher, Nursery School*
B.A., 1945, University of California.
- SUSANNAH VOYSEY KEY (1966), *Supervising Teacher, Perceptually Handicapped*
B.S.Ed., 1966, Memphis State University.
- FAYE J. LANE (1966), *Supervising Teacher, First Grade*
B.A., 1949, Harding College.
- GERLENE STUBBS LIFER (1956), *Supervising Teacher, Second Grade*
B.S.Ed., 1955, M.A., 1958, Memphis State University.

DIANE LOWE (1965), *Supervising Teacher, Second Grade*
B.S., 1964, M.A., 1965, Memphis State University.

JOHN ETHEL MEASELLS (1946), *Librarian*
B.S., 1931, Memphis State University; M.A., 1946, B.S., in L.S., 1951, George Peabody College.

AGNES ANN MOORE (1957), *Supervising Teacher, Fifth Grade*
B.S., 1954, M.A., 1957, Memphis State University.

KITTIE DAVIS NOWLIN (1963), *Supervising Teacher, Fifth Grade*
B.S., 1952, M.A., 1963, Memphis State University.

FRANCES HOLMES PETERS (1955), *Supervising Teacher, Sixth Grade*
B.S., 1942, M.A., 1957, Memphis State University.

BILLY E. SMITH (1964), *Supervising Teacher, Sixth Grade*
B.S., 1949, University of Kentucky; M.A., 1958, Memphis State University.

RUBY ETHEL SUGG (1966), *Supervising Teacher, Fourth Grade*
B.S., 1941, M.Ed., 1958, Mississippi State University.

WILMAH SCOTT TATOM (1962), *Supervising Teacher, Sixth Grade*
M.S., 1960, Memphis State University.

JULIA ETTA THOMAS (1947), *Supervising Teacher, Second Grade*
B.S., 1947, Memphis State University; M.A., 1951, George Peabody College.

EVELYN MCKINSTRY WALKER (1949), *Supervising Teacher, Fifth Grade*
B.A., 1930, University of Mississippi; M.A., 1952, Memphis State University.

LUCILLE WALLIS (1961), *Supervising Teacher, Second Grade*
B.S., 1958, Memphis State University.

ELIZABETH SHELTON WILSON (1965), *Supervising Teacher, Kindergarten*
B.S., 1966, Memphis State University.

Part Two

DESCRIPTION OF THE UNIVERSITY

HISTORICAL STATEMENT

IN 1909 the General Assembly of the State of Tennessee enacted a General Education Bill which provided for the establishment and maintenance of normal schools for the training of teachers, one such school to be located in each of the three grand divisions of the state. In generous support of this proposal, Memphis and Shelby County contributed \$350,000 and a site of approximately eighty acres near the eastern edge of the city. On September 15, 1912, West Tennessee State Normal School was formally opened.

During the intervening years the name, nature, and functions of this school have undergone numerous changes. In 1925 it became a senior college, and the name was changed to West Tennessee State Teachers College. In 1941 the liberal arts curriculum was considerably enlarged, and the name was changed to Memphis State College. In 1950 a graduate school was added, and the undergraduate program was reorganized into three schools. On July 1, 1957, by action of the Tennessee State Legislature, the school was designated Memphis State University.

ORGANIZATION

Memphis State University comprises The School of Arts and Sciences, The School of Business Administration, The School of Education, The Herff School of Engineering, The School of Law, and The Graduate School.* The regular program of the University is supplemented by The Evening Division, The Downtown Division, The Summer Session, and The Extension Division, the various offerings of which afford greatly increased opportunities for the people of this area to avail themselves of the facilities and services of the University.

AIMS OF THE UNIVERSITY

Memphis State University has aimed in the past and continues in the present to offer an educational program compounded of those three elements traditionally associated with institutions of higher learning: teaching, research, and public service.

The primary purpose of the University is to provide experiences through which students may attain a high degree of intellectual maturity, social stability, and professional competence. Through the variety of courses offered by the various schools of the Univer-

*The Graduate School is not described in this catalog; requests for the Bulletin of The Graduate School should be addressed to the Dean of that school.

sity it is hoped that the student's perspective will be so enlarged that the choices he makes in life will be cogent ones and that he will become a fully awakened and involved individual.

Research in many areas and on all levels is vital if our knowledge and comprehension are to be expanded. Because of the unexpected and invaluable results which have come from research undertaken without any immediate goal in view, the distinctions between pure research and applied research have become blurred. From the universities, the communities of scholars, each seeking truth in his own way, have come the most significant discoveries of our age. Memphis State University is constantly seeking to increase and improve its facilities in order to make available to its faculty and students the time, tools, and atmosphere necessary for the kinds of research which the citizens of the area have every right to expect.

Teaching and research are in themselves, of course, part of the public service which the University offers; but, in addition to these, the faculty, staff, and students make other valuable contributions to the public good. Both the physical facilities and the talents of the personnel are now utilized in many ways, and the University is always receptive to suggestions as to how the services may be expanded in order to be of added value to the citizens of the metropolitan area, the state, and the surrounding region.

ACCREDITATION

Memphis State University is fully accredited by The Southern Association of Colleges and Secondary Schools, and is a member of The Association of American Colleges, The Tennessee College Association, The American Association of Colleges for Teacher Education, and the American Council on Education. The School of Education is accredited by the National Council for Accreditation of Teacher Education.

The American Association of University Women, of which the University is a corporate member, admits women graduates of Memphis State University to national membership.

GOVERNMENT

The government of Memphis State University is vested in the Tennessee State Board of Education; the Governor is an *ex officio* member of the board, and the Commissioner of Education is its

chairman. The other twelve members of the board are appointed by the Governor, four members from each of the three grand divisions of the State. Offices of the Board are located in the Cordell Hull Building, Nashville.

The chief administrative officer of the University is the President. He is assisted and advised by members of the administrative staff and the faculty organized into three official bodies, The Administrative Council, The Faculty Council, and The Graduate Council. Each school of the University is administered by a dean, each individual department by a chairman.

MEMPHIS STATE UNIVERSITY FOUNDATION

The Memphis State University Foundation, a private, non-profit general welfare corporation, was established in 1964 to promote and support the academic program of the University. It is administered by a Board of Trustees composed of eminent community leaders in business and industry. Contributions, gifts, and bequests are solicited by the Foundation for the advancement of Memphis State University as an institution of excellence. The funds of the Foundation are expended for student scholarships, departmental projects, research, visiting distinguished professors, faculty salary supplements, visiting lecturers, library and art acquisitions, and similar purposes. Contributions to the Foundation, a tax-exempt organization, are deductible for income tax purposes.

PHYSICAL FACILITIES

ACADEMIC BUILDINGS

The Administration Building, the first academic building on the campus, was completed in 1912; it has been enlarged and remodeled several times and is completely air conditioned. It houses many of the administrative offices of the University and contains classroom and office space for several departments in The School of Arts and Sciences. The Academic Computer Center is also located in this building.

Manning Hall, built in 1930 and named in honor of the University's first instructor in science, Priestly Hartwell Manning, provides the departments of Physics and Home Economics with classrooms, offices, laboratories, a science auditorium, and faculty and graduate research facilities.

Johnson Hall, completed in 1958, is named in honor of Dr. Rayburn W. Johnson, Professor Emeritus of Geography, and his late wife, Ethel B. Johnson. Air conditioned throughout, it contains classrooms, laboratories, offices, a map library, a conference room, and an auditorium for the departments of Geography and Psychology. The map library, a depository for the Army Map Service, Washington, D. C., contains over 10,000 maps. On the ground floor is the Ethel B. Johnson Reception Room, dedicated to the use of the Memphis State University Faculty Wives Club.

Jones Hall, named in honor of Otis Henry Jones, University bursar from 1925 to 1937, was completed in 1960 and enlarged in 1964. It is completely air conditioned and provides classroom and office space for the departments of Aerospace Studies, Art, Classical Languages, and Modern Languages (with an electronic language laboratory). It also houses the University Post Office.

The School of Business Administration Building is a four-story, air-conditioned structure with an adjoining auditorium; it contains administrative offices, classrooms, laboratories, and offices for the departments of Accountancy, Economics and Finance, Management, Marketing, and Secretarial Science and Office Management.

The Industrial Technology Building, built in 1941, and enlarged in 1946 and 1960, provides classrooms, offices, and extensive laboratory facilities for drafting, surveying, woodworking, metalworking, ceramics, and general shop practices.

The Memphis State University Campus School, operated, in cooperation with the Board of Education of the City of Memphis, provides air-conditioned facilities for training student teachers and opportunities for observing good teaching procedures. In addition to regular classrooms it features flexible spaces, learning cubicles, one-way observation glass, sound controls, connections for television broadcasts and reception, and modern facilities to meet the needs of modern public school teaching. These facilities are also utilized in faculty and graduate demonstration, research and experimental projects.

The Field House, built in 1951 and enlarged in 1958 and 1964, contains basketball courts, gymnasiums, classrooms, a stage, seats for 4000, and offices for the Department of Health and Physical Education and for athletics.

The Buford Ellington Biological Sciences Building, named in honor of the governor of Tennessee, is an air-conditioned building containing classrooms, laboratories, specimen areas, research facilities, and an auditorium.

The School of Education Building, an air-conditioned structure also completed in 1964, houses the administration and faculty offices of The School of Education as well as general and special classrooms, laboratory and research areas (including a curriculum laboratory), and an auditorium. The Herff School of Engineering, local offices of the State Board of Education, and the University of Tennessee Graduate Program, are also located in this building.

The Frank G. Clement Humanities Building, named in honor of the former governor of Tennessee, located on the west side of the Mall, was completed in 1966. An air-conditioned office and classroom building, it houses the departments of Sociology and Anthropology, Philosophy, and Political Science, plus a portion of the History and the English staffs.

The J. Millard Smith Chemistry Building, also completed in 1966, and named in honor of the president emeritus of the University, is located to the east of the Mall and is adjacent to Walker Avenue. In addition to the Department of Chemistry, it also houses a portion of the Department of Mathematics.

The School of Law, completed in early 1967, is located on Central Avenue in the new north campus area. This building houses the Law Library in addition to offices, classrooms, and service areas for the staff and students of the School of Law.

Fine Arts Complex, Phase I, consisting of the Speech and Drama and the Music units, is located on Central Avenue. These buildings were occupied for the first time during the spring semester 1967.

The Malcolm R. Patterson English Building, scheduled for completion in the summer of 1967, will house the offices and classrooms of the Department of English; it is named in honor of Governor Patterson, who was the state's chief executive in 1909 when the University was initially constituted.

THE LIBRARY

The University Library, named in honor of former President John Willard Brister, was built in 1927; it has since been considerably enlarged, the latest addition having been completed in 1963. The collection at present numbers over 200,000 volumes, including all U.S. Government publications since 1956. Subscriptions and files are maintained for general and specialized periodicals.

An undergraduate library is presently under construction. It is located south of the existing library and will be connected so as to form an integral part of a library complex. The new structure, featuring a 14 story stack tower, will be put into service in 1968.

DORMITORIES AND OTHER HOUSING

There are five University residence halls for women: *Mynders Hall*, *West Hall*, and *Nellie Angel Smith Hall*, usually assigned to freshmen; *Highland Towers* and *Rawls Hall*, for upper classmen.

There are six University residence halls for men: *Hayden Hall*, *McCord Hall*, *Browning Hall*, *YMCA*, *Robison Hall*, and *Highland Towers*.

Vets Village is a group of frame buildings containing 59 apartments; built after World War II to house veterans and their families, these units are now open to all married students, although veterans retain preference. Applications for occupancy should be made to the Men's Housing Office.

AUXILIARY BUILDINGS

The Old Gymnasium was in 1961 converted into studio and office space for WKNO-TV, the educational television station operated by the Memphis Community Television Foundation.

The Cafeteria, with a seating capacity of 500, adjoins *The Student Center*, which contains a soda fountain, two snack bars, and facilities for group meetings, games, and dancing. A faculty dining room is located in a wing of the former campus school building. All of these facilities are air-conditioned.

The Panhellenic Building, erected in 1959 and enlarged in 1963 by the national sororities with chapters on the campus, is an air-conditioned facility which affords suites for ten sororities and a hostess, guest room, kitchen, and ballroom.

The University Auditorium, located in the air-conditioned Administration Building, seats 1200 and has a stage fully equipped for dramatic and musical productions.

The Bookstore provides air-conditioned, self-service shopping facilities for text-books, and school supplies and equipment.

A student services building is presently under construction. Located on the east side of the Mall, this structure will be ready for use in 1968. It will house the university bookstore and in addition, will provide a variety of food-service, recreational, and conference facilities.

CHUCALISSA INDIAN VILLAGE AND MUSEUM

Chucalissa, prehistoric Indian town and museum, situated in the southwest corner of Shelby County on Mitchell Road, is operated by the University as a research and training facility. Excavation of the site is being undertaken, with students performing the archaeological field work under staff supervision. Adjoining acreage serves as a biological field station. Chucalissa also provides indoor and outdoor archaeological exhibits, open to the public throughout the year.

Part Three

ADMISSION TO THE UNIVERSITY

ADMISSION TO THE UNIVERSITY

INQUIRIES about admission to any undergraduate school of the University should be addressed to the Dean of Admissions. The admissions office receives and processes all applications, evaluates credentials, and issues cards of admission to qualified applicants. Students may enter at the beginning of either of the regular semesters or at the beginning of either of the two terms of the Summer Session.

ADMISSION OF FRESHMEN

An applicant may qualify for admission as a freshman by meeting the following requirements:

- I. High School Graduation.
 - A. By a transcript of credits showing graduation from an approved or accredited high school based on a four-year course of study. In addition to meeting all other requirements listed in this section, graduates of high schools outside Tennessee must rank in the upper one-half of their graduating class or reside within a 150-mile radius of the University to be eligible for admission. Students who do not present one unit of American history are required by Tennessee law to register for the course upon initial enrollment.
 - B. By High School Equivalency Diploma. Applicants 21 years of age or over may be admitted by the equivalency diploma, provided it is issued upon a minimum average GED test score of 50, with no single score below 35.
 - C. By General Education Development tests. Veterans who are not high school graduates and who have at least 12 months of service may be admitted conditionally by GED test scores averaging 45 or more, with no single score below 35. Under certain circumstances, non-veterans under twenty-one years of age may be considered for admission with a minimum average GED score of 50 and with no single score below 35.
- II. Entrance Examination. In order to receive consideration for admission as a freshman, applicants must submit either examination scores earned on the test administered by the American College Testing Program or scores earned on the Scholastic Aptitude Test administered by the College Entrance Examination Board. Applicants who are not recent high school graduates may request an entrance examination administered by the Office of Admissions and Records.
- III. Age. An applicant must be at least 16 years of age.
- IV. Character. The applicant must submit evidence of good moral character (usually the recommendation of the high school principal). All applicants must have honorable dismissal from the last high school or college attended.

- V. Health. Each candidate must be free from communicable disease; must show evidence of vaccination for smallpox within the last five years; and must show a satisfactory chest X-ray or tuberculin skin test within the past six months. It is strongly recommended that all students be immunized against tetanus.

ADMISSION OF TRANSFER STUDENTS AS REGULAR UNDERGRADUATES

Admission with advanced standing will be granted to a student who presents an acceptable score on the ACT or SAT, or an examination administered by the Office of Admissions and Records. The examination requirement may be waived when an applicant has earned at least 66 hours of credit at an accredited institution with a C average on all work attempted. Admission will be granted only to a student who has honorable dismissal from an accredited institution and whose cumulative quality point average meets the following minimum standards, on a scale in which a grade of A gives four quality points:

With two semesters in residence: a quality point average of 1.5000.

With four semesters in residence: a quality point average of 1.8000.

With six semesters in residence: a quality point average of 1.9000.

With more than six semesters in residence: a quality point average of 2.000.

(For part-time students, fifteen semester hours will be the equivalent of one semester.)

A transfer student who has failed his work at another institution and is not entitled to continue there will not be admitted to the University except under unusual circumstances. A transfer student who meets these qualifications, but whose average for the last term in residence is less than 1.5000, will be entered on scholastic probation. The probation must be removed within the first semester of residence.

A transfer applicant who is denied admission because he is not entitled to continue at another institution or because he does not meet the minimum quality point average requirement may have his application reconsidered after an appropriate period of time has elapsed.

Credit toward a degree will be accepted only for courses which are equivalent of those offered at Memphis State University. The Dean of Admissions will evaluate the transcript of each transfer student to show the credits acceptable to the University. The

dean of the school to which the student is admitted will inform the student of the extent to which his credits will apply toward the degree sought.

All credits are transferred at their original grade; if the quality point average on such transferred credits is less than C, the cumulative quality point average must be brought up to a C by higher grades at Memphis State University before the student can qualify for graduation. (See page 99 for the method of computing quality point averages.) Every student must qualify for graduation on the basis of every course attempted, here and elsewhere. In no case may transferred grades be used to raise the student's quality point average on courses taken at Memphis State University; his average on all courses must be C (2.000) or better.

A student submitting advanced standing credit from an unaccredited institution will be given consideration. Each case will be considered individually, and credit may be accepted tentatively. In no case will credit be recorded until it has been validated by satisfactory work at this university for one or more semesters.

Advanced standing of not more than 72 semester hours will be accepted from a junior college. Credit earned at a junior college after a student has completed 72 semester hours of college work from any source will not be accepted.

Transfer credit from vocational schools or vocational colleges not accredited by the Tennessee State Board of Education and/or The Southern Association of Colleges and Secondary Schools (or corresponding agencies for other states and regions of the United States) will not be accepted toward a degree or toward teacher certification.

A student who has attended any accredited or approved institution of higher learning will not be permitted to enroll as a beginning freshman.

ADMISSION OF TRANSFER STUDENTS AS TERM SPECIALS

A regularly enrolled student of another institution who desires to take only a limited number of hours during a term and who is not presently working toward a degree at Memphis State University, may be admitted as a Term Special student, subject to the following provisions.

1. He must submit an application for admission and a five-dollar application fee (unless the fee has been paid previously).
2. He must have the registrar of his college or university submit to the Dean of Admissions and Records a statement of good standing and his current classification. (Note: If the student later decides to become a permanent transfer student, transcript of college and high school work and satisfactory entrance examination scores will have to be submitted.

ADMISSION OF TRANSFER STUDENTS AS SPECIAL UNDERGRADUATES

A graduate of an accredited institution who desires to take only a limited number of courses and who indicates that he is not presently working toward a degree at Memphis State University may be admitted as a Special Undergraduate, subject to the following provisions:

1. He must submit an application for admission.
2. He must have the college or university from which he was graduated send to the Dean of Admissions a statement giving the name of the degree that he earned and the date he earned it. (Note: If the student later decides to become a permanent transfer student, working toward another degree, transcripts of all college and high school work will have to be submitted.)

ADMISSION OF ADULT-SPECIAL STUDENTS

A student who desires to take only a limited number of courses and who indicates that he is not presently working toward a degree at Memphis State University, may be admitted as an Adult-Special, subject to the following provisions.

1. The applicant must hold a high school diploma or be 21 years of age or older.
2. He will be permitted to take no more than 9 semester hours per semester.
3. He will be allowed to enroll only in classes which meet after 4:00 p.m. or on Saturday.
4. He may not accumulate, in adult-special status, more than 18 semester hours of credit at Memphis State University. (After that time he must apply for regular classification if he is to continue to enroll.)
5. He may at any time apply to the Dean of Admissions for reclassification as a regular student, effective at the beginning of the next regularly scheduled semester; he must follow the same procedures and meet the same standards as required for all other applicants

for admission to the University. If he is admitted as a regular student, the credits which he earned as an adult-special student (up to a maximum of 18 semester hours) may be counted toward a baccalaureate degree if approved by the dean of the school from which the degree is sought.

6. A student who has been denied regular admission to Memphis State University because of low admission test scores may not apply for Adult-Special admission until at least 12 months after the previous application.
7. A student who has been dismissed, because of low academic standing, from another institution of higher learning may not apply for admission until at least 12 months after such dismissal.

PROCEDURES FOR ADMISSION

1. Application. A written application on a form supplied by the University is required. The Application for Admission form, which includes instructions for completing arrangements for entrance, must be secured from the office of the Dean of Admissions, completed in ink or by typewriter, and returned to the admissions office. The completed form must include the applicant's social security number.

2. Application Fee. Applicants are required to submit with their application form a non-refundable fee of \$5.00.

3. Credentials. A student entering directly from high school should request his principal to mail to the Dean of Admissions an official transcript of his high school work. A student entering from another college or other colleges should request the registrar of each college attended to mail to the Dean of Admissions an official transcript of his college work. *In every case credentials must include a complete record of all previous secondary schools and all collegiate institutions attended, regardless of credit earned, and regardless of whether or not credit is desired.* To prevent delay in completing registration, all credentials, including the completed application form, the official transcript, and the health service record, should be on file in the office of the Dean of Admissions at Memphis State University before the beginning of the term for which application is made. All transcripts become the property of the University and cannot be returned.

4. Entrance Examination. Beginning freshmen who are recent high school graduates must take either (1) the examination administered through the American College Testing Program or (2) the Scholastic Aptitude Test of the College Board. Information about these examinations may be obtained from the high school principal

and/or guidance counselors. Applicants who will have been graduated from high school at least six months prior to their proposed date of entrance may make a request to take an examination administered by the University. Transfer applicants who have earned 66 hours of credit from an accredited college or university with a 2.0 average on all work attempted are not required to submit entrance examination scores.

5. Health Card. Each student is required, as a condition of admission, to file with the Dean of Admissions a medical history and report of physical examination on the Health Service Record Card provided by the University.

FORMER STUDENTS

Former students who wish to return to the University must file a formal application for readmission; application forms, available from the office of the Dean of Admissions, must be completed in ink or by typewriter and returned to the Dean of Admissions. If the student has enrolled at another college since last attending Memphis State University, he must have a transcript from the other college submitted and approved before he may re-enter. Applications will receive favorable consideration only if the applicant is eligible for readmission under all University regulations, including the grade-point average requirements shown on page 67.

CREDIT FOR SERVICE IN THE ARMED FORCES

Veterans who have completed one year or more of full-time, extended active military service will be excused from taking the required physical education activity courses and, in addition, will be allowed six semester hours (less credit already earned) of health and physical education credit upon presentation of a copy of their discharge form (DD Form 214) to the office of the Dean of Admissions. Reservists who have served six months active duty under the provisions of the Reserve Forces Act of 1955 are not considered veterans; they may, however, be excused from taking the required physical education activity courses upon the presentation of a copy of their discharge form (DD Form 214) to the chairman of the Department of Health and Physical Education.

The Dean of Admissions and Records should be consulted to determine whether additional credit can be given for courses offered through the United States Armed Forces Institute or other service schools.

Part Four

EXPENSES AND FINANCIAL AID

EXPENSES AND FINANCIAL AID

THE matter of expense while attending the University is of importance to every student. It is difficult, however, to give specific information about yearly expenditures; expenses vary according to the nature of the curriculum, the place of residence (whether in Tennessee or in another state or country), and the student's own habits and needs. In any student body there are so many different tastes, as well as such a wide range of financial resources, that each student must determine his budget in keeping with his own needs and financial condition. It is possible to live simply, and to participate moderately in the life of the student community, on a modest budget. The best help the University authorities can offer the student in planning his budget is to inform him of certain definite expense items and to acquaint him with others for which he will in all probability have to provide.

The information in this section concerning tuition, fees, deposits, financial aid, etc. is applicable only to students enrolled in the undergraduate schools of the University. Similar information for students in The Graduate School and The School of Law is available in the bulletins of those schools.

The listing of any fee or incidental charge in this catalog does not constitute a contract between the University and the student. Because of rapidly changing conditions it may become necessary to alter a fee structure before the next edition of the catalog is published. As a condition of registration each student will pay the fees in effect at the time he registers.

APPLICATION FEE

Each student submitting an application for admission to the University must pay, at the time he submits his application, a non-refundable fee of \$5.00.

MAINTENANCE FEE

All students, whether resident or non-resident, pay a maintenance fee of \$10.00 per semester hour, not to exceed a maximum of \$97.50. Students paying the maximum fee are entitled to certain health services; admission to home athletic events, concerts, plays, social and other student-sponsored activities; and a subscription to *The Tiger Rag*, the student newspaper.

TUITION

No charge is made for tuition to bona fide residents of the State of Tennessee; non-residents are charged \$112.50 per semester (for full-time students) or \$10.00 per semester hour (for part-time students).

The following policy is applied by the State Board of Education in classifying students as residents or non-residents for purpose of assessing tuition charges:

As a general rule the residence of a student is presumed to be that of his parents or guardians on the date of his enrollment at Memphis State University. "Residence" is interpreted to mean the state in which the parents or guardians are domiciled. "Guardian" is interpreted to mean a bona fide legal guardian appointed by the courts for purposes other than the establishment of residence for the purpose of avoiding payment of non-resident tuition. The residence of a married student (minor or adult) or the residence of an unmarried adult student shall be presumed to remain that of his parents or guardians unless he has independently established a residence of his own. The fact that such a student owns and dwells in his own home in Tennessee shall be sufficient evidence to classify him as a Tennessee resident.

The office of the Dean of Admissions and Records shall make the original decision concerning residence classification. The student may appeal this decision to the Committee on Residency; he may also petition this committee at a later date, if circumstances change, to reconsider his classification. Further information about residence classification may be obtained from the office of the Dean of Admissions and Records.

Fees for audits will be assessed on the same basis as fees for credit courses.

THE SUMMER SESSION

The Summer Session consists of two separate terms of approximately six weeks each. Charges are assessed, however, not by the term but either (1) for the entire two-term Session or (2) on a semester hour basis. The charge for the entire Session (during which the student may take a maximum of fourteen semester hours) is \$70.00 to residents of Tennessee, \$145.00 to non-residents. The semester-hour charge is \$10.00 per semester hour to residents, \$20.00 per semester hour to non-residents.

The student must indicate his choice of payment plan (either for the full two-term Session or per semester hour) at the time of his initial registration; he may not shift from one plan to the other

thereafter. No part of his payment is returnable unless he withdraws from the University within the period during which refunds are allowed. If, for example, he pays for the entire Session and then enrolls for fewer than the maximum number of hours allowed him, or if he decides to attend only one term, no part of his \$70.00 (or \$145.00) payment will be refunded. The student who wishes to attend for only one term or to take fewer than eight semester hours in two terms should, for his own benefit, pay at the semester-hour rate.

COURSES IN APPLIED MUSIC

The fee for all private lessons in brasses, canon and fugue, composition, organ, percussion, piano, strings, woodwinds, and voice is \$50.00 per half-hour lesson per semester. Those students who are majoring in music (those currently registered for music theory) will pay only one \$50.00 fee per semester.

REFUNDS

If a student withdraws from the University within seven days after the beginning of classes for the fall and spring terms, a refund will be made of 80% of his maintenance fee and tuition or music fee (if any). Each week thereafter, the amount will be reduced 20%. *All other fees are non-refundable.*

For the Summer Session a refund of 80% of the maintenance fee and tuition or music fee (if any) is made if the student withdraws from the University within three school days after the beginning of classes. Each three school days thereafter, the amount will be reduced 20%. *All other fees are non-refundable.*

RESIDENCE HALLS

Charges for rooms in University residence halls are indicated below. For information concerning application for rooms, see page 88.

	<i>Per Semester*</i>	<i>Per Summer Term*</i>
Rawls Hall (air conditioned).....	\$154.00	\$ 46.50
Robison Hall (air conditioned).....	\$137.00	\$ 38.50
Central and Highland Towers (air conditioned and full meals).....	\$506.50	\$173.00
All other residence halls.....	\$131.50	\$ 40.25

*All rates include telephone (except in Robison Hall) and post-office box, but *not* long-distance telephone tolls.

MEALS

The University Cafeteria and Student Center, open to all students, provide wholesome food at reasonable prices. The University Food Service offers to students a meal plan designed to insure students their needed 21 meals a week at a nominal cost of \$228.80 per semester including sales tax. This amount is paid in advance to Morrison Food Service, Inc. at the University. Upon receipt of payment, the cafeteria will issue a meal plan card to the student; if, for any reason, the student withdraws from the University, the unused portion of the \$228.80 except for a \$5.00 fee for closing the account will be refunded. For further information see or write the Director of Food Services, Memphis State University Cafeteria.

AIR FORCE ROTC DEPOSIT

A uniform deposit of \$13.00 and a \$2.00 activity fee are required of each student who enrolls in the Air Force ROTC program. The uniform deposit, less charges for uniform loss or damage, will be refunded at the end of the academic year or at the beginning of a semester in which the student is not enrolled in the ROTC program.

LABORATORY DEPOSITS

Certain courses in chemistry require breakage deposits, any unused portion of which is refunded.

LATE REGISTRATION

Students who do not complete registration (including the payment of fees) during the official registration period will be charged \$5.00 for the first day after the official registration period and \$1.00 per day thereafter.

ADDING AND DROPPING COURSES

A charge of \$3.00 per course will be made for each course which is added or dropped after the student has completed registration.

LATE EXAMINATIONS

A student who is permitted to take a final examination at a date later than the one on which the examination was originally scheduled will be charged \$1.00 per examination.

TRANSCRIPTS

One transcript of the student's academic record at Memphis State University is furnished free; a charge of \$1.00 is made for each additional copy requested. Transcripts are issued only at the request of the student or his authorized agent. No transcript will be provided for a student who has any financial indebtedness to the University.

DIPLOMA FEE

Each candidate for a degree from Memphis State University pays a \$15.00 fee to cover cost of the diploma, rental of cap and gown, and incidentals connected with the commencement exercises. This fee must be paid thirty days before graduation.

AUTOMOBILE REGISTRATION

Each person who expects to operate and park an automobile on the campus must register it in the traffic office (Room 130, Administration Building) and pay \$3.00 for an official permit, valid from September through August.

IDENTIFICATION CARDS

The University issues to each student an identification card, including his photograph, personal description, and certificate that he is enrolled as a student in the University. The card is required for registration, the borrowing of library books, the cashing of personal checks, and other purposes. The card remains the property of Memphis State University; a charge of \$10.00 will be required for its replacement.

BAD CHECKS

It is expected that a check given in payment of any fee will clear the bank on which it is drawn. If a check is returned, the fee is assumed to be unpaid and charges for late payment will be assessed. A \$2.00 service charge will be assessed for each bad check, whether given in payment of fees or cashed by the University for the personal convenience of the student. Check-cashing privileges will be revoked for any student who has checks returned by his bank more than once.

SUMMARY OF EXPENSES, 1967-68

(This table is applicable only to students in the undergraduate schools and departments; charges for The Graduate School and for The School of Law are detailed in the bulletins of those schools.)

FALL AND SPRING SEMESTERS

	<i>Residents</i>	<i>Non-Residents</i>
Per semester (full-time student).....	\$ 97.50	\$210.00
Per semester hour (part-time student).....	\$ 10.00	\$ 20.00

THE SUMMER SESSION (two terms)

	<i>Residents</i>	<i>Non-Residents</i>
Per Session (two terms).....	\$ 70.00	\$145.00
Per semester hour.....	\$ 10.00	\$ 20.00

STUDENT HOUSING

	<i>Per Semester</i>	<i>Per Summer Term</i>
Rawls Hall (air conditioned, telephone, post office box).....	\$154.00	\$ 46.50
Robison Hall (air conditioned, post office box)...	\$137.00	\$ 38.50
Central and Highland Towers (air conditioned, telephone, post office box, and full meals)...	\$506.50	\$173.00
All other residence halls (telephone and post office box).....	\$131.50	\$ 40.25
(Rates do <i>not</i> include long distance telephone tolls.)		

APPLIED MUSIC COURSES

Private lessons in brasses, canon and fugues, composition, organ,
percussion, piano, strings, woodwinds, and voice. \$50.00 per semester
(Students currently enrolled for music theory will pay only one \$50.00
fee per semester.)

INCIDENTAL CHARGES

Adding courses	\$ 3.00 per course
Application for admission	5.00 per application
Automobile registration	3.00 per automobile
Diploma	15.00 payable once
Dropping courses	3.00 per course
Late examinations	1.00 per examination
Late registration	5.00 for first day after official registration period; \$1.00 per day thereafter
Transcripts	1.00 per copy after first copy
Air Force ROTC activity fee	2.00 per year

DEPOSITS

Air Force ROTC Uniform	\$13.00 (refundable, less charges for loss or damage)
Dormitory rooms	\$25.00 (refundable, less charges, upon termination of occupancy)
Laboratory breakage	Variable (refundable less charges)

ADDITIONAL CHARGES

The University reserves the right to increase the charges listed herein
or to add new ones whenever such increases or additions are found to
be necessary.

AIDS AND AWARDS TO STUDENTS

Unless indicated otherwise, all inquiries concerning scholarships and loans should be addressed to the Director of Student Aid. Except for band scholarships, awards are available only to Tennessee residents who are graduates of Tennessee high schools.

Scholarships

Applications for the fall semester must be received no later than April 1; for the spring semester, no later than one month before registration for the spring semester.

THE ADVERTISING CLUB OF MEMPHIS annually awards a scholarship of \$250.00 to the outstanding junior or senior student majoring in advertising.

AFROTC FINANCIAL ASSISTANCE GRANTS are awarded annually by the United States Air Force to certain male students in the AFROTC Professional Officer Course; awarded on a competitive basis, these grants include tuition, books, fees, and \$50.00 per month for a one, two, or three-year period.

THE AL CHYMIA SHRINE SCHOLARSHIP is awarded annually to an outstanding high school senior majoring in journalism. This scholarship is for the amount of registration fees during the freshman year only.

ALPHA DELTA KAPPA, ALPHA CHAPTER, annually awards a \$200 scholarship to a woman student in her junior or senior year who is a resident of Shelby County and is preparing to enter the field of teaching.

ALPHA DELTA KAPPA, Lambda chapter, annually awards a \$125 scholarship to a woman student in her junior or senior year preparing to enter the field of teaching.

THE ALPHA XI DELTA MATHEMATICS SCHOLARSHIP of \$50 is awarded to the most outstanding junior woman majoring in mathematics.

THE R. C. ANDERSON SCHOLARSHIP FUND was established by the late R. C. Anderson, the interest from whose estate is to be used to provide scholarships for young men in their freshman and sophomore years who are residents from Benton, Decatur, or Henderson County.

THE DEPARTMENT OF ART annually awards a number of scholarships to students who demonstrate an ability in this area. Inquiries should be addressed to the chairman of the department.

BAND SCHOLARSHIPS varying in amounts from \$50 to \$250 are awarded annually to University band students. Inquiries should be addressed to the Director of Bands.

THE BURK JOURNALISM AWARD is offered annually to the freshman journalism major who has been judged most outstanding in academic performance and professional promise. The award, providing \$175 for tuition expenses during the winner's sophomore year, is donated by Bill E. Burk, a professional journalist and an alumnus of the Department of Journalism (Class of 1957) at Memphis State University.

THE COTERIE, an organization of women interested in the arts and philanthropies in the arts, provides scholarships to enable young women to continue their studies in the fine arts.

THE MEMPHIS CHAPTER, FINANCIAL EXECUTIVES' INSTITUTE SCHOLARSHIP of \$250 is awarded annually to a second-semester junior student in The School of Business Administration. Ability, need, and an interest in controllership or financial management are important criteria.

THE FOREST HILL CEMETERY COMPANY SCHOLARSHIP is a four-year award of \$2000 to an outstanding high school graduate of Memphis or Shelby County. The recipient is selected by a joint committee of the Forest Hill Cemetery Company and the University.

THE GENERAL UNIVERSITY SCHOLARSHIP FUND provides scholarships varying in amount and duration to outstanding high school graduates.

THE GEORGE W. GRIDER SCHOLARSHIP FUND annually provides four scholarships of \$250 each to outstanding high school graduates from Memphis and Shelby County.

THE A. ARTHUR HALLE MEMORIAL SCHOLARSHIP FUND annually provides two scholarships of \$200 each to outstanding high school graduates for the freshman year only.

THE ED HUMPHREYS SCHOLARSHIP FUND annually provides scholarships in varying amounts to outstanding high school graduates.

THE JOSEPHINE CIRCLE SCHOLARSHIP, in the amount of registration fees, is awarded annually. The award is made on the basis of scholastic record, personality, future plans of the applicant, and need.

THE LEO LEVY SCHOLARSHIP FUND annually provides scholarships in varying amounts to outstanding high school graduates.

THE P. H. MANNING SCHOLARSHIP FUND was established by the late Professor P. H. Manning, who left the bulk of his estate to be used by the State Board of Education to provide scholarships for young men students meeting certain conditions set forth in his will. The scholarships of \$100 each are given to young men from Carroll, Decatur, Gibson, and Henderson counties.

THE MIKE MCGEE MEMORIAL SCHOLARSHIP FUND, *maintained by the Memphis Press Club*, provides on or more scholarships of \$250 each year. These scholarships are awarded to journalism majors of any class with a minimum grade average of 2.7 upon approval of the Memphis Press Club scholarship committee.

THE MEMPHIS ELECTRIC LEAGUE SCHOLARSHIP of \$500 is awarded annually to a student from Shelby County on the basis of scholastic achievement and need.

THE MEMPHIS HIGH SCHOOL ALUMNI SCHOLARSHIP FUND provides an annual scholarship in the amount of \$250 to a graduate of a high school in the city of Memphis.

MEMPHIS LINKS offers annually, to a major in speech and drama, a scholarship which pays the annual registration fee required for residents of Tennessee.

THE MEMPHIS REAL ESTATE BOARD SCHOLARSHIP is awarded annually to an outstanding high school graduate from Memphis or Shelby County who desires to major in Real Estate. This is a four-year award in the amount of \$500 per year.

THE MEMPHIS CHAPTER OF THE NATIONAL ASSOCIATION OF ACCOUNTANTS annually awards a scholarship of \$100 to an outstanding accounting major selected by the faculty of the Department of Accountancy. A scholarship key is presented to the recipient.

THE PERSONAL LOAN AND FINANCE SCHOLARSHIP of \$250 is awarded annually to a freshman majoring in The School of Business Administration.

THE SERTOMA CLUB—ROBERT TALLEY JOURNALISM SCHOLARSHIP was established to honor a long-time member of the editorial staff of the Memphis *Commercial Appeal*. Each year the Sertoma Club of Memphis awards a scholarship valued up to \$350 to an advanced journalism student who has done outstanding work at Memphis State University. Applications are to be submitted to the dean of The School of Arts and Sciences.

THE SOUTHERN BOILER AND TANK WORKS SCHOLARSHIP FUND annually provides two scholarships of \$250 each to freshman and sophomore engineering students with outstanding academic records.

THE TENNESSEE BROADCASTERS ASSOCIATION SCHOLARSHIP of \$300 is awarded annually to an outstanding student majoring in Radio and Television.

THE TENNESSEE CONSUMER FINANCE ASSOCIATION SCHOLARSHIP of \$250 is awarded annually to a major in The School of Business Administration demonstrating ability, need, and an interest in consumer credit.

THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS awards annually fourteen scholarships of \$250 each to accounting majors, with good academic averages, enrolled in qualifying Tennessee Colleges. The scholarships are awarded on a competitive basis in relation to scholarship, extra-curricular activity, character, and financial need.

S. C. TOOF & Co. annually awards a scholarship of \$250 to an outstanding junior or senior student majoring in advertising.

THE UNITED DAUGHTERS OF THE CONFEDERACY BOOK SCHOLARSHIP is awarded annually to a student who is a descendant of a Confederate soldier. This award is for \$50.

UNIVERSITY SCHOLARSHIPS. Memphis State University awards annually 250 to 300 State Board scholarships to students who have exceptionally good academic records and are residents of the State of Tennessee. These scholarships pay the annual registration fees required of residents of Tennessee. Recipients are required to work thirty hours per semester.

THE WDIA "FOR THE RECORD" SCHOLARSHIP of \$500 is awarded annually to an outstanding student majoring in Journalism.

THE HORACE H. WILLIS MEMORIAL SCHOLARSHIP of \$250 annually is awarded from time to time to an incoming freshman on the basis of need for financial assistance and evidence of academic promise.

THE WOMEN'S ASSOCIATION OF THE UNIVERSITY awards annually one semester's registration fees to a junior woman selected on the basis of outstanding academic achievement.

Loan Funds

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN LOAN FUND of \$200, administered by the Memphis branch of the AAUW, is available to women students recommended by the University.

THE AULL LOAN FUND of \$250, contributed by Mrs. Genevieve Aull, is to be used for loans to members of the senior class who have demonstrated their scholastic eligibility by one or more years of satisfactory work in residence.

THE JOHN WILLARD BRISTER LOAN FUND. On the occasion of the twenty-first birthday celebration of the University, the members of the faculty presented a fund of \$150 to be named in honor of the late President John Willard Brister.

THE CLASS OF 1933 LOAN FUND of \$102 was donated by the Class of 1933 as a class memorial.

DAUGHTERS OF THE AMERICAN REVOLUTION, FORT ASSUMPTION CHAPTER OF MEMPHIS, LOAN FUND of \$500 is available for loans to eligible students.

THE GENERAL UNIVERSITY LOAN FUND provides short term, low interest loans up to \$200 for those students who have an emergency or immediate need for funds.

THE DR. JENNINGS B. GEORGE LOAN FUND of \$1000 was established in honor of Dr. Jennings B. George.

THE OWEN ROGERS HUGHES MEMORIAL LOAN FUND of \$100 is available for loans to eligible students.

THE KAPPA LAMBDA SIGMA AND PHI LAMBDA DELTA LOAN FUND of \$206 was presented by the Kappa Lambda Sigma sorority and the Phi Lambda Delta fraternity in memory of those members of Phi Lambda Delta who lost their lives in World War II.

THE MARION CIRCLE LOAN FUND of \$100 is available for loans to eligible students.

THE MEMPHIS SALES EXECUTIVES — PI SIGMA EPSILON (KAPPA CHAPTER) LOAN FUND, provides emergency loans up to \$100 for upper-division students in The School of Business Administration. Maximum loan to any one student over a two-year period is \$200.00.

THE NATIONAL DEFENSE STUDENT LOAN PROGRAM. The National Defense Education Act of 1958 provided funds to institutions for the purpose of making low interest, long term educational loans available to students who demonstrate academic promise. These loans bear no interest until nine months after a student graduates or interrupts his course of study and then the interest rate is three per cent. Undergraduates are permitted to borrow up to \$1000 a year based on their educational costs and personal resources. Persons who later teach may receive 10% cancellation of their loan for each year they teach, up to five years. Applications must be received not later than August 1, for students desiring loans for the Fall Semester.

THE DELTA OMICRON CHAPTER OF PHI DELTA KAPPA sponsors a loan fund of \$500, available in \$125 loans to full-time undergraduate seniors and full-time graduate students who are planning to be teachers.

THE QUOTA CLUB LOAN FUND, administered by the Quota Club of Memphis, makes funds available to women students of junior or senior rank. Applications are to be submitted to Mrs. Ellen Davies Rodgers, chairman of the Education Committee of the Memphis Quota Club.

THE SHELBY COUNTY PARENT-TEACHER ASSOCIATION LOAN FUND of \$602.38 is available in varying amounts to eligible students.

TENNESSEE ASSOCIATION OF PUBLIC ACCOUNTANTS LOAN FUND was established to enable a needy junior- or senior-year student in the Department of Accountancy to remain in school. Loans are non-interest as long as student remains in school.

THE TENNESSEE EDUCATIONAL LOAN CORPORATION in cooperation with the federal government, guarantees 100% of loans made by Tennessee banks or other lending institutions to students from Tennessee who needs to borrow money for their college education. This program enables lending institutions to provide long-term, low interest loans to students with a guarantee of receiving repayment. The federal government pays the interest on these loans while a student is enrolled in college and pays one-half the interest after the student leaves college. Applications can be obtained from participating lending institutions and the University. Applications for these loans should be filed not later than August 1.

THE UNITED STATES DAUGHTERS OF 1812 LOAN FUND of \$650, donated by the Old Hickory Chapter, USD of 1812, Memphis, consists of three awards: (1) the Mary Robinson Day Memorial Scholarship of \$250; (2) the Martha Moore Allen Scholarship of \$250; and (3) the Willis Hitzing Scholarship of \$125. All three of these awards are loan funds and may be awarded to a man or woman on recommendation of the faculty.

THE ZONTA CLUB OF MEMPHIS LOAN FUND of \$250 is available to eligible junior and senior women. Applications are to be made through the Dean of Women who will submit the names to a committee of the Zonta Club for approval and selection.

Awards

THE COLLEGIATE CHAPTER OF THE AMERICAN MARKETING ASSOCIATION each year makes an award of a plaque to the outstanding senior majoring in marketing.

THE MEMPHIS CHAPTER OF ARCHITECTURAL WOODWORKERS offers cooperative employment opportunities for senior students majoring in drafting and design and in construction technology.

THE CHEMICAL RUBBER PUBLISHING COMPANY annually awards the *Handbook of Chemistry and Physics* to two freshman students selected by the faculties in chemistry and physics as outstanding in these fields of study.

THE PHI CHAPTER OF CHI BETA PHI, national honorary scientific fraternity, annually awards a plaque to the student who has attained the highest average grades during his four years of study in each of the disciplines of biology, chemistry, mathematics, and physics.

THE CITY PANHELLENIC ASSOCIATION makes an annual award to the sorority woman in the graduating class with the highest average.

DELTA SIGMA PI, the international business fraternity, annually awards a scholarship key to the man in The School of Business Administration graduating with the highest scholastic average in business subjects.

THE GOOCH FOUNDATION makes an annual award to the freshman holder of a Gooch Scholarship who has the highest scholastic average for the year.

PHI GAMMA NU, the professional sorority in business, each year presents a scholarship key to the woman business graduate who has maintained the highest scholastic average in The School of Business Administration.

THE SIMON AND GWYNN MARKETING AWARD is given annually to a senior majoring in marketing for the best treatise on a selected subject on advertising or marketing. The award consists of \$100 and a trophy.

THE STUDENT GOVERNMENT ASSOCIATION of the University makes an award at each convocation to the man in the class who, graduating with honors, shows the highest scholastic attainment.

THE SMEAD AWARD is presented to the outstanding graduate in the field of business education who is planning a career of teaching.

THE MEMPHIS CHAPTER OF THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS presents a plaque each year to the graduating student who has the highest overall scholastic average among all accountancy majors.

THE WALL STREET JOURNAL annually awards a plaque and a year's subscription to the *Journal* to the most outstanding graduate in the fields of management or finance.

THE WOMEN'S ASSOCIATION OF THE UNIVERSITY makes an award at each convocation to the woman member of the senior class who, graduating with honors, shows the highest scholastic attainment.

Part Five

STUDENT LIFE AND ACTIVITIES

STUDENT CONDUCT

It is assumed that applicants for admission to Memphis State University are ladies and gentlemen, and every consideration will be shown them as such until, by their own acts, they forfeit the confidence reposed in them. Rules of government and regulations in regard to general conduct are, of course, necessary. Whenever any number of people live together, each must forfeit some individual privileges for the general good. The rules and regulations at Memphis State University are of such nature as to secure ready conformity and also sympathy and cooperation on the part of students in making them effective. These rules and regulations are outlined in the Student Handbook, distributed to all students at the time of initial registration; each student is expected to keep this handbook and use it as a guide during his residence at Memphis State University.

STUDENT HOUSING

The University operates six residence halls for men and six for women. Students wishing to live in the dormitories should make their applications at the earliest possible date. Application forms may be obtained from the Admissions Office or the Director of Housing; they should be submitted to the Director of Housing. For information concerning residence hall rents and deposits, see page 76.

All unmarried undergraduate women not living in University housing or with their parents or legal guardians must have their place of residence approved by the Director of Housing prior to registration.

All beginning freshman men who are single, under the age of 21, and who do not reside with their parents or legal guardians are required to live in University approved housing as long as space permits.

Married students who are currently enrolled in the University are eligible to apply to the Director of Housing for space in one of the fifty-nine apartments for married students; the husband must be enrolled in the University as a full-time student. Preference is given to veterans.

Any request for exceptions to housing policies must be made in writing to the Director of University Housing prior to registration. A student should not assume that the request has been approved until written acknowledgment has been received from the Housing Office. Permission to live in non-University housing is granted for one semester only.

AUTOMOBILES ON THE CAMPUS

Each person who expects to operate and park an automobile on the campus of Memphis State University must register it in the traffic office, Room 130, Administration Building, and receive an official permit. Permits are valid from September through August.

Limited parking space necessitates close regulation of traffic. Each student is responsible for acquainting himself with the campus traffic and parking regulations, copies of which are available in Room 130, Administration Building.

HEALTH SERVICE

A student Health Service, maintained by the University for all full-time students who have paid the maximum maintenance fee, provides services of physicians and registered nurses for such special medical aids as may be rendered by the staff. The student is financially responsible for hospitalization and medical care beyond that offered by the Health Service. The University Health Service does not cover the additional costs for special health care such as consultations with specialists, special nursing care, surgical operations, and dental treatment. In case of serious illness, the parents of the student are notified and the student is admitted to a general hospital at his own expense.

Special sickness and accident insurance policies for students are available; they are particularly valuable to those students whose coverage under family policies has terminated. Policies are issued by a private agency, authorized and approved by the University; details are available at the time of registration.

HOSPITALIZATION

Emergencies which require hospitalization of dormitory students are often accompanied by confusion and dangerous delays while parents are notified in order to clear hospital admission for the student who is not covered by hospitalization insurance. For the welfare of the dormitory student and because the University can assume no financial responsibility for hospitalization, it is strongly recommended that each dormitory student be covered by a family policy or be enrolled in the Memphis State University Student Insurance Plan, which has University support and approval.

COUNSELING SERVICE

The Office of Counseling Services, located in Johnson Hall, provides personal counseling for students of the University. Those who need advice concerning personal problems or their occupational choice will normally make contact with the Office by way of referral through the Student Health Service or the personnel deans. However, a student may avail himself of these services by going directly to the Office of Counseling Services.

PLACEMENT SERVICES

The Office of Alumni Placement, located in Room 324 of the Administration Building, arranges interviews between graduating students and prospective employers and maintains an active file of employment opportunities for alumni who wish to change positions or advance in their fields.

Teacher placement, because of its specialized nature, is handled in the Office of Teacher Placement, located in Room 416, Education Building.

Part-time employment for undergraduate students is handled through a branch office of the Tennessee Department of Employment Security, located on the first floor of the Administration Building, Room 120. In cooperation with employers throughout the metropolitan area of Memphis, this office attempts to place students in part-time work that is in keeping with their ultimate employment goals. Part-time employment for freshmen is discouraged.

BOOKSTORE

The University Bookstore, located south of the Field House, is owned and operated by the University for the convenience of its students, faculty, staff, and their guests. In addition to textbooks and supplies required or recommended for every course in the University, the Bookstore also stocks clothing, cosmetics, notions, physical education uniforms, stationery, rental typewriters, and gift items; it is the only outlet for the purchase of the official Memphis State University class ring.

POST OFFICE

The University Post Office, located on the first floor of Jones Hall, has post office boxes available for rent by students and faculty. Students living in University housing have post office boxes located in these facilities, charges for which are included in the dormitory rent. Student mail should be addressed to the proper post office box number, Memphis State University, Memphis, Tennessee 38111.

ATHLETICS

The University sponsors a two-phase athletic program, intramural and intercollegiate. The intramural program is under the supervision of the Department of Health, Physical Education, and Recreation. Policies for intercollegiate athletics are set by the University Committee on Athletics.

The intramural program operates throughout the year and provides students with opportunities to compete in seasonal sports either as individuals or as members of teams from the various student organizations. Individual competition is offered in tennis, shuffle-board, badminton, table tennis, archery, handball, golf, billiards, and football field events. Team participation is offered in softball, bowling, basketball, volleyball, and track. Recreational equipment may be borrowed from the recreational loan office.

The intercollegiate program sponsors teams in football, basketball, baseball, track, golf, tennis, and gymnastics. These teams compete in a regular schedule with teams from other recognized institutions of the same scholastic level as Memphis State University.

Athletic facilities on the campus include four gymnasiums, ten all-weather tennis courts, six handball courts, a football field, and a quarter-mile running track.

The Department of Health, Physical Education, and Recreation is closely associated with both the intramural and intercollegiate programs. Coaches serve as instructors in this department, and students utilize the three programs and facilities in preparation for careers in the fields of health, physical education, and recreation.

THE ALUMNI ASSOCIATION

The Memphis State University Alumni Association, with offices at 3709 Norriswood Avenue, maintains active contact with graduates for the mutual benefit of alumni and the University. Annual meetings of the association are held on the campus each autumn as an important feature of the Homecoming Weekend. The Alumni Association also publishes the alumni magazine, *The Columns*, which is sent quarterly to members.

EXTRA-CURRICULAR ACTIVITIES

A variety of extra-curricular activities under competent supervision and direction are included in the University's program, and furnish valuable experience and training for the students. Participation in extra-curricular activities is a privilege extended only to students who are in good standing and who meet the particular

requirements of the various organizations. Invitations to membership, when required, are extended by the individual organizations.

The following activities and services are provided free of charge to full-time students: *The Tiger Rag*, *Phoenix*, *Student Handbook*, *DeSoto* (if student has picture made), intramurals, athletic events, and most cultural events on campus unless a reserved seat is desired.

No attempt is made in the following section to present an exhaustive or detailed account of all organizations and their activities. Full information is provided in the Student Handbook, distributed to all students at the time of registration. Copies are available in the offices of the Dean of Students, the Dean of Men, and the Dean of Women.

STUDENT GOVERNMENT. The Associated Student Government is composed of officers, a senate, a cabinet, and a judiciary elected annually by the student body. It exercises responsibility in those areas of student life delegated to it by the University and represents student opinion in working with the administration toward the good of the University.

PUBLICATIONS. Students write and edit *The Tiger Rag*, the weekly newspaper; *The DeSoto*, the University yearbook; *The Phoenix*, the literary magazine; and the *Memphis Statesman*, a laboratory publication of the Department of Journalism.

ART. The Department of Art sponsors exhibitions of art works throughout the year. The galleries in Jones Hall and in the library display the work of national and local talent in addition to faculty shows and the annual student exhibit. Lectures and films on art are also a part of the department's yearly program.

MUSIC. Qualified students, whatever their majors, may participate in the numerous musical groups organized and directed by the Department of Music, including the University Symphony Orchestra, the Music Education Orchestra, the University Bands (marching, concert, and stage), and a variety of choral groups and small instrumental ensembles. The department presents an extensive offering of concert recitals by faculty, students, and visiting artists. The Memphis State String Quartet and the Memphis State Woodwind Quintet present an annual series of chamber music programs. The department also presents major opera and oratorio productions. Copies of programs for the musical events of the 1966-67 season will be mailed upon request; letters should be addressed to the chairman of the Department of Music.

SPEECH AND DRAMA. Qualified students, whatever their majors, are invited to audition for roles in the plays produced each year by the Department of Speech and Drama. In addition to its six major productions during the academic year, the Department of Speech and Drama sponsors the Lunch Box Theatre, a student-organized and operated experimental theatre; the Interpreters Theatre, resigned to present concert readings and programs or oral interpretation; and the forensics program, affording students opportunities to participate in debate, extemporaneous speaking, oratory, after-dinner speaking, oral interpretation, and discussions. From this latter group are chosen those students who represent the University in its extensive intercollegiate forensics program. During the summer the Department offers a repertory program of plays and sponsors a Forensics Institute for high-school students.

THE GOODWYN INSTITUTE LECTURES. The Goodwyn Institute, founded and endowed by William A. Goodwyn, philanthropist and former citizen of Memphis, provides a series of free lectures and addresses covering a wide variety of subjects. The aim of the Institute is to offer to the citizens of Memphis and the students of the University authoritative and accurate information upon all kinds of practical and cultural subjects. Public forums frequently follow the lectures, all of which are held in the University auditorium. Admission is free, and reserved seat tickets may be obtained in the office of the Director of the Goodwyn Institute.

RELIGIOUS ACTIVITIES. Religious life on the campus is under the direction of a standing committee of the faculty and a student religious council functioning in cooperation with the Associated Student Government. The major religious bodies maintain meeting facilities adjacent to the campus, each supervised by its own staff; they provide activities adapted to the needs of the University community and designed to aid in the continuing religious growth and development of faculty and students. The organized religious groups include the Baptist Student Union, Canterbury Club, Chi Alpha, Christian Science Organization, Disciples Student Fellowship, Hillel Foundation, Koinonia Club, MSCF, Newman Club, Wesley Foundation, Westminster Fellowship, and Wittenberg Society. The Religious Activities Committee plans campus activities at appropriate times during the year.

SCHOLARSHIP, LEADERSHIP, AND PROFESSIONAL ORGANIZATIONS. Many national honorary societies, devoted to encouraging high standards of scholarship, leadership, and professional competence, maintain active chapters on the campus. In addition, most departments and subject-matter areas sponsor local clubs to provide majors and other interested students with experiences and activities not always available in the classroom. Organizations petitioning for membership in a national society maintain all standards required for affiliates. Local organizations operate under charters issued by the Associated Student Government; revocation of a charter entails loss of University recognition and sanction. Detailed information concerning these organizations, including requirements for membership, purposes, and specific activities, will be found in the Student Handbook and from sponsoring departments. Meetings are announced on bulletin boards and in *The Tiger Rag*.

SOCIAL FRATERNITIES AND SORORITIES. Eleven national fraternities maintain chapters at the University: Acacia, Alpha Epsilon Pi, Alpha Tau Omega, Kappa Alpha, Kappa Sigma, Lambda Chi Alpha, Pi Kappa Alpha, Pi Kappa Phi, Sigma Alpha Epsilon, Sigma Chi, and Sigma Phi Epsilon. Most of them own houses off the campus and offer limited rooming facilities to upperclassmen. Student supervision and coordination of their activities are provided through the Interfraternity Council. Four colonies are petitioning for national recognition; Scrollers, Beta Tau of Zeta Beta Tau, Phi Sigma Kappa, and Phi Kappa Psi.

Twelve national sororities maintain chapters at the University: Alpha Delta Pi, Alpha Gamma Delta, Alpha Phi, Alpha Xi Delta, Delta Gamma, Delta Sigma Theta, Delta Zeta, Gamma Phi Beta, Phi Mu, Pi Beta Phi, Sigma Delta Tau, and Sigma Kappa. Most of them have suites in the Panhellenic building. Student supervision and coordination of their activities are provided through the Panhellenic Council.

University supervision of fraternity and sorority activities is provided through the offices of the Dean of Men and the Dean of Women.

Part Six

ACADEMIC REGULATIONS

THE ACADEMIC YEAR

THE academic year begins in September and covers a period of forty-eight weeks divided into two semesters and a summer session. Each semester is approximately eighteen weeks in length, and the Summer Session is divided into two terms of from five to six weeks each. Students may enter at the beginning of either of the regular semesters or at the beginning of either of the two terms of The Summer Session.

ORIENTATION, COUNSELING, AND REGISTRATION

An orientation program for all new undergraduate students is held on the days preceding registration as outlined in the University Calendar. During these orientation sessions, members of the administration and faculty introduce the new students to various programs of study, general University regulations, and basic registration procedures. Students are assigned to faculty advisers in the field of their major interest who aid them in selecting the appropriate courses. Throughout his residence at the University, each student has the assistance of his faculty adviser in all scholastic matters. *This assistance, however, does not relieve the students of the responsibility of studying the catalog himself and fulfilling all of the requirements therein for his particular goal.* It is expected that a student who has attained senior standing will consult with the dean of his school in regard to the fulfilling of the requirements for his chosen degree.

The Schedule of Classes, published a few weeks before the beginning of each semester and available from the office of the Dean of Admissions and Records, contains a detailed outline of the registration procedure. Students are urged to study these schedules carefully and to keep them available for immediate reference during the registration period and throughout the semester. All students are expected to register on the dates indicated in the calendar; although registration is permitted after these dates, a late registration fee is charged, and there is no reduction in other fees.

In no case is credit allowed in any course for which the student is not duly registered; and all courses for which the student is registered are recorded as passed (with a letter grade), failed, incomplete, withdrew passing, withdrew failing, or dropped. No student will be granted credit for a course which is not properly entered on his official registration card. Registration is not complete until all fees for the semester have been paid.

CLASSIFICATION OF STUDENTS

Students having 25 semester hours of credit and two semesters of residence are classified as sophomores; students having 55 semester hours of credit and four semesters of residence are classified as juniors; students having 85 semester hours of credit and six semesters of residence are classified as seniors.

Special students. Only those students who hold baccalaureate degrees and who are registered in courses for undergraduate credit may be classified as special students. All others, whether full- or part-time, are classified as freshmen, sophomores, juniors, seniors, or graduate students.

Adult-Special Students. For information concerning admission as an adult-special student see page 69.

Students who have completed the required number of hours and the required residence to be classified as juniors but who have not completed their basic requirements in the Lower Division must schedule these uncompleted requirements during the first semester following in which such courses are available.

CREDIT HOURS AND MAXIMUM LOAD

The unit of credit at Memphis State University is the semester hour; a semester hour is defined as the credit earned for the successful completion of one hour per week in class for one semester; or two hours per week of laboratory work for one semester. (A course which gives three semester hours credit will normally meet for three lecture or recitation hours per week; or for two lecture or recitation hours and two laboratory hours per week; or for some other combination of these.) Each lecture hour presupposes a minimum of two hours preparation on the part of the student.

The minimum number of semester hours per semester for classification as a full-time student is twelve. The maximum number of semester hours for a student with less than a B average (3.0) is eighteen (not including the required physical education activity course). A student who has a B average for a semester may, with the permission of the dean of his school, schedule a maximum of twenty-one hours for the following semester.

For each term of The Summer Session, four semester hours is the minimum load for classification as a full-time student; six semester hours is the average load; seven semester hours is the maximum. No student may schedule more than a total of fourteen semester hours in the two terms of The Summer Session.

Students who have part-time employment, either on or off the campus, are strongly urged not to register for a full academic load.

GRADES AND QUALITY POINTS

Grades. At the end of each semester or summer term, instructors report to the Records Office the standing of all students in their classes. The grade of a student in any course is determined by his class standing and his examination, combined in such proportion as the instructor in charge of the course may decide. Class standing in any course is determined by the quality of the student's work, the regularity of his attendance, and the thoroughness of his preparation. The instructor's evaluation of the student's work is expressed by letters, which have values, on a scale of 100, as follows:

A, excellent (95-100)	BW, withdrew from the University during the drop period
B, good (85-94)	PW, withdrew passing after the drop period
C, satisfactory (75-84)	FW, withdrew failing after the drop period
D, poor (65-74)	NC, no credit
F, failure (64 or below)	
I, incomplete	
DW, if a course is dropped	

The grade of I (incomplete) indicates that the student has not completed the course for some unavoidable reason that is acceptable to his instructor. This grade may be changed by the instructor and credit allowed when the requirements of the course have been met, provided the work has been completed within the first four weeks of the next semester the student is in residence; and provided further that the deficiency is made up within one calendar year from the date the grade of I was given, even if the student has not re-entered the University. If the student fails to complete the course within the specified time, no credit will given for the course. The fee for a late examination is \$1.00.

All grades, with the exception of I, when once reported, can be changed only by the instructor who reported them, and then only after approval by the faculty Committee on Entrance and Credits.

A student has the privilege of repeating a course in an attempt to improve the grade previously made. The grade he makes the last time the course is taken is the grade that will be considered as the final grade. A student may not attempt the same course more than three times for the purpose of obtaining a passing grade or a higher grade.

All courses for which the student is registered are recorded as passed (with a letter grade), failed, dropped, withdrew passing, withdrew failing, or incomplete. In no case is credit allowed in any course for which the student is not duly registered. No student

will be granted credit for a course which is not properly entered on his official registration card.

Quality Points. For the purpose of computing averages, grades are converted to quality points. Each grade of A counts 4 quality points per semester hour; B, 3 quality points; C, 2 quality points; D, 1 quality point; F, DW, BW, PW, and FW, no quality points.

In computing a student's scholarship ratio, or quality point average, all courses attempted are included. As an example: a student carrying five three-semester-hour courses for a total of 15 semester hours makes the following grades: A, B, C, C, F; he has thus accumulated quality points in the amount of 12, 9, 6, 6, 0, for a total of 33. In computing his quality point average, the number of hours attempted (15) is divided into the quality points earned (33) for an average of 2.2.

CLASS ATTENDANCE

Students at Memphis State University are expected to give their scholastic obligations first consideration. Prompt and regular class attendance is considered necessary for satisfactory work. It is expected that a student will regard an engagement to attend classes as he would any other engagement or conference with an instructor. All reasons for absence should be submitted as soon as possible to the instructor. The satisfactory explanation of absences does not in any sense relieve the student from responsibility for the work of his course during his absence. The instructor in charge of a course determines in all instances the extent to which absences and tardiness affect the student's grade. Absences are counted from the first scheduled meeting of the course.

Absence from the final examination without the permission of the instructor incurs a mark of F.

CREDIT BY CORRESPONDENCE OR EXTENSION

Memphis State University accepts a limited number of credits earned by correspondence and/or extension, provided that such credits are taken from an institution which is a member of the University Extension Association, The Teachers College Extension Association, or the appropriate regional accrediting association. Memphis State University offers some work by extension but none by correspondence.

Prior to a student's initial registration at Memphis State University as a regular undergraduate (for official definition of "regular undergraduate," see page 67), the Office of the Dean of Admissions and Records will, at the time the student applies for admission, determine the acceptability of extension and/or correspondence credits earned at other institutions. After the student has

been admitted as a regular undergraduate, whether he is a beginning freshman or a transfer student, he will not be given credit applicable to any Memphis State University degree for subsequent correspondence or extension courses unless he has obtained, *prior to his enrollment in such courses*, written permission from the dean of the school in which he is majoring.

No student is permitted to enroll for correspondence or extension courses while he is carrying a maximum load at Memphis State University.

Not more than one-fourth of the semester hours applied on the bachelor's degree may be earned by correspondence or extension or a combination of the two.

A student who has completed the two semesters of required residence in his junior and senior years and who lacks NO MORE than four semester hours toward completion of degree requirements may earn these additional credits by acceptable correspondence or extension work, or by residence at another approved institution. (For details of residence requirements, see page 106).

ADVANCED PLACEMENT CREDIT

Memphis State University participates in the Advanced Placement Program of the College Entrance Examination Board. A maximum of twelve semester hours may be given to qualified students on the basis of the examinations conducted by the Board. To be eligible for credit, an entering freshman must place in group three, four, or five of the CEEB Advanced Placement Tests.

CREDIT BY EXAMINATION

Examinations for credit in courses offered by the University may, under special circumstances, be offered to students who believe they have already mastered the material of the course through private study, technical employment, or the like. The following regulations govern the granting of credit by examination:

1. Permission to take an examination for credit will be given only in instances where the student has already gained fundamental knowledge of the subject. In no case will a student be permitted to take a credit examination in a course which he has audited or taken for no credit, or in which he has previously made a grade D or F. Nor may he take the examination for credit if he has already earned credit in a course of equivalent or more advanced standing.

2. Permission to take a credit examination will be granted only to students who are registered for no less than 12 semester hours in residence and who are in good academic standing. Permission to take a credit examination must be secured from the instructor of the course, the department chairman, and the dean of the school in which the student is registered. After permission has been granted, the Dean of Admissions will issue an official permit for the examination after the payment of the cost of the examination plus a fee of \$3.00 per semester hour. No instructor may give a credit examination until the official permit from the Dean of Admissions is presented.

3. Credit examinations normally will be given in conjunction with the final examination in the course for which credit is sought. The faculty and administrative personnel involved may choose to require a standardized examination instead of the final examination, or in addition to it. In no case will credit examinations be administered while the University is not in session.

4. The maximum credit which may be established through credit examination is 15 semester hours with not more than 8 semester hours in one area. Credit for course work earned on an examination basis will not be recorded until the student has successfully completed a more advanced course in the subject with at least a C grade.

5. Credit examinations are indicated on the student's record as P. To pass a credit examination the student must make a grade equivalent to at least a C in the course. Grades on credit examinations will not be used in computing the quality point average.

AUDIT COURSES

Students who are registered for one or more classes at Memphis State University may also register to audit a course with the approval of their adviser and the chairman of the department in which the course will be offered. Auditors are not required to prepare lessons or papers, or take examinations. They are not to take part in class discussions or laboratory or field work.

Persons who are not enrolled for credit courses may register for audit courses with the approval of the Dean of Admissions and Records and the department chairman.

Students enrolled for credit courses may take no more than one audit course per semester. Persons who are not enrolled for credit courses may register for a maximum of three courses with the approval of the department chairmen.

Fees for audits will be assessed on the same basis as fees for credit courses.

COURSES FOR NO CREDIT

Students who are not candidates for a degree, and who do not desire to meet admission requirements and earn credit at Memphis State University, may take certain courses for no credit. Anyone interested should consult the dean of the school in which the course he wishes to take is offered.

ADDING AND DROPPING COURSES

After the official registration period is over the student may make adjustments in his schedule through the process of adding and/or dropping courses. Courses may be added only during the first five days of classes (three days in The Summer Session). Courses may be dropped only during the first three weeks of

classes (five days in The Summer Session). Exact dates of termination are carried in the University Calendar.

A course may be added or dropped only by permission of the student's adviser and the dean of the school in which the student is registered. A fee of \$3.00 is charged for each course added or dropped. Dropping a course without permission incurs the grade of F.

WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to withdraw from the University must notify the Dean of Students promptly in writing. Failure to give such notification will result in grades of F on all courses for which the student is registered. Students enrolled in The Evening Division should report their withdrawals to the office of the director of The Evening Division.

Withdrawal from the fall semester is not permitted after November 30; withdrawal from the spring semester is not permitted after April 30. Withdrawal from either term of The Summer Session is not permitted within four class days of final examinations.

Any student who withdraws after the termination of the period during which courses may be dropped (see above, Adding and Dropping Courses) will have all courses not previously dropped recorded as either PW (withdrew passing) or FW (withdrew failing).

SCHOLASTIC STANDARDS

The Dean's List. The Dean's List is composed of those students who complete a minimum of fifteen semester hours with a grade point average of at least 3.4.

Retention Standards. A minimum quality point average of 2.0 is required for graduation from the University. A student who has acquired 66 or more semester hours credit with less than a 2.0 average will be warned. Failure to bring the scholastic average up to 2.0 in a reasonable time will lead to exclusion from the University.

Probation. A student who makes less than a 1.5 quality point average for a semester will be placed on scholastic probation. If, during his next semester of attendance, the student's quality point average is again below 1.5, he will be suspended for an indefinite period of not less than one full semester. If, at the end of his suspension he is readmitted to the University, he must remove probation during the first semester of his readmittance. A quality point average of 1.5 will remove the student from probation.

Any student who fails probation the second time is excluded from the University. A student who withdraws while on scholastic probation is presumed to have failed his probation.

Part Seven

GRADUATION FROM THE UNIVERSITY

DEGREES OFFERED

THE degrees conferred by Memphis State University are offered through The School of Arts and Sciences, The School of Business Administration, The School of Education, The Herff School of Engineering, The School of Law, and The Graduate School, as follows:

The School of Arts and Sciences: *Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science in Medical Technology*

The School of Business Administration: *Bachelor of Business Administration*

The School of Education: *Bachelor of Science in Education*

The Herff School of Engineering: *Bachelor of Arts in Applied Science, Bachelor of Engineering, Bachelor of Science in Industrial Technology*

The School of Law: *Bachelor of Laws*

The Graduate School: *Master of Arts, Master of Science, Master of Business Administration, and Master of Science Teaching*

Courses required for all baccalaureate degrees (except Bachelor of Laws) are outlined in the section which follows; specific requirements for the individual degrees will be found in the sections of the catalog devoted to a description of the undergraduate schools. Requirements for the Bachelor of Laws degree will be found in the Bulletin of The School of Law; requirements for graduate degrees will be found in the Bulletin of The Graduate School.

GENERAL REQUIREMENTS FOR ALL
BACCALAUREATE DEGREES

The following requirements have been established by the University for all undergraduate degrees offered. In addition, the student must meet the requirements for his specific degree as established by the school or department in which it is offered.

1. *English*. All students must complete successfully English 1101, 1102, 2101, 2102, or their equivalent. They are to be taken consecutively through the freshman and sophomore years, or until completed. No credit will be allowed on any course until all the preceding courses are com-

pleted. These courses may not be dropped from the student's schedule except under very special conditions.

2. *History.* All students must complete successfully History 2601 and 2602, or their equivalent. These courses are not open to students who have earned less than 25 semester hours credit.

3. *Science.* All students must complete successfully one year in a natural or physical science; this requirement must be met with a two-semester sequence course in one science (biology, chemistry, geology, mathematics, or physics) or Geography 1101 and Geology 1101.

4. *Physical Education.* Four semesters of physical education activity courses are required of all students during the first four semesters in the University, except those who complete two years of Air Force ROTC of whom only two semesters of physical education are required. A student may take only one physical education activity per semester unless he is a physical education major or minor or a recreation major. All students (except Physical Education majors and minors and Recreation majors) are required to take Physical Education 1001 for one or two semesters; they may then complete their requirements by selecting activity courses numbered 1111 or above. No student other than a physical education major or minor or a recreation major may apply more than four semester hours of basic physical education to the minimum degree requirements of 132 semester hours. A student unable for medical or other reasons to take regular physical education is required to register for an adaptive class, or otherwise follow recommendations of the office of health services.

5. *English proficiency.* Every student who enters Memphis State University on or after September 1, 1961 is required to pass the English proficiency examination administered by Memphis State. He becomes eligible to take the examination only after he has successfully completed 70 semester hours of work. Students who transfer to Memphis State University on or after September 1, 1961, with 70 or more semester hours are eligible immediately to take the examination. Anyone who enrolled at Memphis State University as a regular student prior to September 1961 will not be required to take the examination unless his program is re-organized under the provisions of the catalog of 1961 or later. Dates of the examinations are listed in the University Calendar. For further details see Assistant Professor Harry Cotham, Chairman of the Committee on English Proficiency, Room 301-A, Administration Building.

6. *Air Force ROTC.* All able-bodied, full-time male students under 26 years of age are required to complete successfully the first two years of Aerospace Studies during their first two years of attendance whether or not they intend to graduate. Veterans and six month active duty trainees may be excused; excuse cards may be obtained during registration upon proof of military service. A transfer student entering Memphis State University is required to take only the remainder of the general military course offered according to his academic classification. A transfer student admitted with 1 - 12 semester hours is required to take 4 semesters of ROTC; with 13 - 24 semester hours, 3 semesters; with 25 - 37 semester hours, 2 semesters; with 38 - 54 semester hours, 1 semester. A transfer student admitted to Memphis State with junior status (55 or more semester hours transferred in good status) is excused from the Aerospace Studies requirement. Students who have otherwise qualified for graduation in continuous part-time status or through The Evening Division are not required to complete the ROTC requirement and a waiver is not required.

7. *Quality Point Average.* To receive a bachelor's degree from any of the schools in the University, a student must have a quality-point average of at least 2.000 (i.e., two quality points for every semester hour at-

tempted); for the method of computing the quality point average, see page 99. If for any reason a student offers more than 132 semester hours credit for graduation, the ratio of two quality points to one semester hour of credit must be maintained. To attain this standard the candidate must have a C average on all courses attempted in the University. Students who enter Memphis State University with advanced standing are required to maintain an average of C on all courses taken here.

8. *Residence Requirements.* A student will satisfy the residence requirements for graduation by completing, during his junior and/or senior year(s) a minimum of (1) thirty-six weeks of residence and (2) twenty-four semester hours of credit in residence. The final twelve semester hours must be taken in residence. (EXCEPTION: a student who has completed thirty-six weeks in residence during his junior and/or senior year(s) and who lacks no more than four semester hours toward completion of his degree requirements may earn these additional credits by residence at another approved institution or by acceptable correspondence or extension work.)

In computing residence requirements for full-time students the following formulae are used: The successful completion of one semester as a full-time student—i.e., one registered for a minimum of twelve semester hours—gives residence credit of eighteen weeks. The successful completion of one summer term as a full-time student—i.e., one registered for a minimum of six semester hours—gives residence credit of six weeks.

In computing residence requirements for part-time students the following formulae are used: Each semester hour earned in a regular semester gives residence credit of one and one-half weeks, up to a maximum credit of eighteen weeks. Each semester hour earned during a summer term gives residence credit of one week, up to a maximum credit of six weeks.

GRADUATION WITH DISTINCTION

Students who have fulfilled all graduation requirements, who have completed a minimum of sixty semester hours at Memphis State University prior to their final semester, and who have been in residence for a minimum of four semesters prior to their final semester are eligible for designation as honor graduates. Those who have a quality point average of 3.0 and less than 3.5 will be graduated *cum laude*; those who have a quality point average of 3.5 and less than 4.0 will graduate *magna cum laude*; those who have a quality point average of 4.0 will be graduated *summa cum laude*. (In computing averages for honors, the grades of only the first semester of the graduating year will be included.)

A transfer student, in order to be eligible, must have made the required average on all work taken at Memphis State University and must, in addition, have an over-all average which meets the honors requirements; the final average may in no instance be higher than that made at Memphis State University.

Students who already hold a baccalaureate degree are not eligible for these distinctions.

DEFERRED GRADUATION

A student is ordinarily allowed to graduate under the requirements of the catalog of the year in which he enters the University. If a student begins work on a degree and fails to complete the requirements, he must, after seven years from the date he entered, reorganize his degree plan to conform to the current catalog. Time spent on active military duty is not considered a part of this seven-year period.

PRE-PROFESSIONAL DEGREE PROGRAM

A student who completes six semesters of undergraduate work before entering certain professional schools may, upon evidence of satisfactory completion of the first year of work in the professional school, be granted a baccalaureate degree from Memphis State University, provided that all the following provisions are met *before the student enrolls in the professional school*:

1. Formal application for his Memphis State University degree must be made to the dean of the school in which the student is enrolled.
2. The choice of a professional school must be approved in writing by the dean of the school in which the student is enrolled.
 - a. The minimum requirements for entrance to professional school must be sixty semester hours of undergraduate work.
 - b. The professional school must be accredited by the recognized national association in its field or must be an integral part of a university accredited by the appropriate regional association.
3. The last two semesters of pre-professional work must be done at Memphis State University.
4. The candidate must complete 99 semester hours in a pre-professional curriculum.
5. The candidate must complete, in his pre-professional curriculum, at least 24 semester hours in courses numbered above 2999, including at least 6 semester hours in his major field.
6. The candidate must meet all freshman and sophomore requirements of the degree curriculum.
7. The candidate must complete a minimum of 24 semester hours in his major area and 18 semester hours in his minor area.

The candidate in the pre-professional degree program should notify the dean of his school of his intentions no later than the beginning of his sophomore year and should, with the guidance of his adviser, plan his program at that time.

SECOND BACHELOR'S DEGREE

A student who has completed the requirements for one bachelor's degree may receive a second bachelor's degree upon the com-

pletion of the curriculum prescribed for the second degree, provided that the work completed includes at least twenty-four semester hours in residence over and above the total number of hours completed for the first degree. The student will be governed by the provisions of the catalog in effect at the time he re-enters the University for work toward the second degree.

REQUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student at Memphis State University who wishes to receive a certificate to teach in the elementary or secondary schools of the State of Tennessee must (1) file an application for admission to the teacher education program with the Dean of The School of Education; (2) complete successfully all of the University requirements for a baccalaureate degree; and (3) complete successfully the courses outlined in Sections I, II, and III, below. Applications for admission to the teacher education program cannot be considered until the student has completed a minimum of one and one-half years of college work to the satisfaction of the faculty of The School of Education; for further details, see page 152.

Graduate, special, and transfer students who wish certification should confer with the Director of Certification concerning their individual requirements, particularly the credit to be allowed on courses taken elsewhere or at an earlier time.

I. PROFESSIONAL EDUCATION (27-33 semester hours)

Education 2011, 2111, 3121, and the courses in *one* of the following groups:

For the elementary certificate: Education 3241, 3251, 3261, 3271, 4242, and 4821 (9 semester hours), for a total of 33 semester hours.

For the secondary certificate: Education 4441, 4841 (9 semester hours), an appropriate secondary schools methods course, and one elective applicable for secondary school teachers, for a total of 27 semester hours.

II. GENERAL EDUCATION (45 semester hours)

(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements outlined in Section III, below.)

English 1101, 1102, 2101, 2102.

Health 1102

History 2601, 2602.

Mathematics 1181 for elementary certification; for secondary certification

Mathematics 1111 or any higher-numbered mathematics course excluding Mathematics 1211 (Basic Mathematics)

Speech 2911 (for elementary certificate); or Speech 1211, 1311, or 1411 (for secondary certificate)

Science: 9 semester hours (including one two-semester sequence course) in *two* of the following sciences: biology; chemistry; Geography 1101, 4111, 4121, 4122, 4131; geology; physics. (P. E. majors may take Biology 3630 for second area).

One course (3 semester hours) in one of the following social sciences: anthropology, economics, geography (other than the earth science courses listed above), political science, and sociology.

One course in the humanities to be chosen from one of the following departments: Art, Classical Languages, Modern Languages (sophomore or above), Music, and Philosophy.

One of the following courses: Home Economics 1101, Psychology 1101, Sociology 1111.

III. SPECIFIC SUBJECT MATTER ENDORSEMENT (Choose A, B, C, D, or E, or any combination of these*)

(Courses taken to meet the requirements of Section II, above, may, if applicable, be used to meet any part of the requirements of this section.)

A. CORE CURRICULUM (82 semester hours)

Endorsement for core curriculum requires 82 semester hours distributed over the broad fields of language arts, social studies, science, library service, and others. For specific requirements the student should consult the chairman of the Department of Curriculum and Instruction.

B. ELEMENTARY CERTIFICATE (58 semester hours)

Art 1101, 3411.

Biology 2001, 2002.

Geography 2301, 2311.

Health 3306.

History 1301, 3900.

Library Service 3111.

Mathematics 1182, 2581.

Music Education 3231, 3232.

Physical Education 1241, 3806.

Physical Science 1031, 1032.

Political Science 2211.

C. SPECIAL EDUCATION

To receive a certificate in special education, the student must have completed 45 semester hours of general education and the following requirements:

1. Crippling and Special Health Conditions (15 semester hours)

Special Education 4151, 4162, 4171, 4172, 4882.

Completion of the requirements for the elementary or secondary certificate, including Education 4821, or 4841.

*The student whose major is secondary education must complete requirements for certification in two or more teaching areas with a combined minimum of 36 semester hours.

2. **Educable Mentally-Retarded** (18 semester hours)
 Special Education 4151, 4162, 4163, 4164 (or 4165), 4881
 Education 5551 or 7651
 Completion of the requirements for the elementary or secondary certificate.
3. **Speech and Hearing** (Speech Pathology and Audiology) (51 semester hours)
 Special Education 4151
 Education 2011, 2111, 3121
 Three of the following courses: Education 3821, 4012, 4112, 4131, 5511
 Speech 2611, 2621, 2631, 3631, 3641, 3651, 3661, 4601, and 4671.
4. **Multiple Disabilities** (including cerebral palsy) (27 semester hours)
 Special Education 4151, 4162, 4163, 4171, 4172, 4881 (or 4882).
 Education 4242 and 5511 (or 7651)
 Completion of the requirements for the elementary or secondary certificate, including Education 4821 or 4841, and not less than six semester hours in psychological foundations (satisfied by Education 2111 and 3121).
 Speech 2621.

D. KINDERGARTEN THROUGH GRADE 3

To receive a certificate in kindergarten—grade 3, the student must complete the requirements for the elementary certificate and, in addition, must complete Education 3211, 3411, and 4811.

E. SECONDARY CERTIFICATE (Choose one or more endorsements)

1. **ART**, (24 semester hours)
 Art 1101, 1201, 1204, 1311, 1314, 3161, 3411, 3531.
2. **ARTS: FINE AND INDUSTRIAL**. (33 semester hours)
 Art 1101, 1201, 1204, 3161, 3411.
Industrial Technology: 18 semester hours in industrial technology courses, with not less than 6 semester hours in each of three of the following areas: drafting, woodwork, metalwork, electricity, crafts, mechanics.
3. **BUSINESS**
 All applicants for certification in business subjects are required to complete (a) a group of basic courses and (b) additional courses for endorsement in one or more specific fields; the same course may be applied in both areas.
 - a. **Basic requirements** (18 semester hours)
 Accounting 2010, 2020.
 Economics 2110, 2120.
 One course from each of two of the following areas:
 Management 1010, 3010; Secretarial Science 3510, 3520;
 Mathematics 2291.
 - b. **Specific endorsement field** (choose one or more)
 - (1) **Bookkeeping** (10 semester hours)
 Accounting 2010, 2020, 2720, and one additional upper-division course in accounting.

- (2) Business Arithmetic (6 semester hours)
Mathematics 1211 and 2291
 - (3) Business English (3 semester hours)
Secretarial Science 3510 or 3520
 - (4) Business Law (6 semester hours)
Management 3010, 3020
 - (5) Business machines (3 semester hours)
Management 2711 or Secretarial Science 3310.
 - (6) Consumer education (3 semester hours)
Economics 3330 or Home Economics 4103
 - (7) Economics (12 semester hours)
Economics 2110, 2120, and two additional upper-division courses (6 semester hours) in economics
 - (8) General business (9 semester hours)
Management 1110, 3010 ; and a minimum of 3 semester hours in mathematics, the specific courses to be chosen in conference with the adviser
 - (9) Office and clerical practice (3 semester hours)
Secretarial Science 4320, or 4330, or 4410.
 - (10) Salesmanship (6 semester hours)
Marketing 3010, 3410.
 - (11) Secretarial practice (15 semester hours)
Endorsement in office and clerical practice, shorthand, and typewriting
 - (12) Shorthand (6 semester hours)
Six semester hours in shorthand, including one upper-division course
 - (13) Typewriting (6 semester hours)
Six semester hours in typewriting, including one upper-division course
4. DISTRIBUTIVE EDUCATION
Six hours in distributive education
Ten semester hours in Marketing and Business Administration
Verified practical experience in a distributive occupation (or Marketing 4991)
5. ENGLISH (18 semester hours in upper-division courses)
English 3214; 3221 or 3222 or 3223; 3321; 3322; 3501; 4232 or 4233
In addition to 18 semester hours in the required advanced English courses, it is highly recommended that the student have 3 semester hours credit chosen from modern or contemporary literature: English 3342, 4242, 4252, 4351, 4441
6. FOREIGN LANGUAGE (18-24 semester hours)
Endorsement may be obtained in French, German, Latin, and/or Spanish; the specific courses to meet certification requirements must be selected in conference with the chairman of the department in which the language is offered. Semester hour requirements are as follows:
If two or more units of one foreign language were taken in high school: 18 semester hours in that language
If fewer than two units were taken in high school: 24 semester hours in one language
(If a student has had two or more units in each of two foreign languages in high school, he may be certified in both languages if

he completes a total of 30 semester hours in these same languages, with a minimum of 12 semester hours in each.)

7. HEALTH INSTRUCTION (24 semester hours)
Health 1202, 2102, 2202, 3102, 3202, 4802; Home Economics 2202; Biology 1631, 1632.
8. HEALTH AND PHYSICAL EDUCATION
For Men (29 semester hours)
Health 1102; 2102 or 3502, 3102, 3202 (12 semester hours)
P. E. 1101, 1251, 1311, 1321 (4 semester hours)
P. E. 2103 or 2203 or 2303 or 2403, 3203, 3303, 3503, 3603, and 4503 (13 semester hours)
Biology 1631, 1632.
For Women (31 semester hours)
Health 1102, 2102, 3102, 3202 (12 semester hours)
P. E. 1101, 1221, 1251, 1291, 1321 (5 semester hours)
P. E. 3103, 3203, 3303, 3503, 3603, 4503 (14 semester hours)
Biology 1631, 1632.
9. HOME ECONOMICS (non-vocational) (30 semester hours)
Home Economics 1105, 2102, 2103, 2202, 2205, 3302, 3305, 4101, 4103, 4104.
10. INDUSTRIAL ARTS (24 semester hours)
Twenty-four semester hours in industrial technology courses, including at least 12 semester hours in one of the following areas of specialization: drafting, woodwork, metalwork, electricity, plus Industrial Technology 1511 and 2911.
11. LIBRARY SERVICE (12-18 semester hours)
Endorsement may be obtained as either (a) librarian or (b) teacher-librarian.
a. Librarian: Library Service 3111, 3121, 3131, 4231, 4232, 4331
b. Teacher-librarian: Library Service 3131, 4231, 4331, and one of the following courses: Library Service 3111, (for elementary certification) or Library Service 3121 (for secondary certification).
12. MATHEMATICS (19 semester hours)
Mathematics 1212, 1321, 2321, and 6 additional semester hours in mathematics courses.
13. MATHEMATICS AND PHYSICAL SCIENCE (51-53 semester hours)
Mathematics 1212, 1321, and 5 additional semester hours in mathematics courses.
Chemistry 1111, 1112.
Physics 2111, 2112 (or Physics 2511, 2512)
Physical geography or geology: 8 semester hours
Mathematics and/or physical sciences electives: 14 semester hours
14. MUSIC (39-45 semester hours)
All applicants for certification in music are required to complete
(a) a group of basic courses and (b) additional courses for endorsement in a specific field.
(a) Basic requirements (30 semester hours)
Music 1032 (and 1012), 1033 (and 1013), 2031 (and 2011), 3235
One of the following courses: Music 1041, 1131, 3131, 3132.
Applied music: 12 semester hours (in class instruction or individual lessons) approved by the Chairman of the Department of Music Education.
(b) Specific field of endorsement (Choose either or both)

- (1) School music (9 semester hours)
Music 3236.
Music Education 1311, 1711, 1911, and 4231.
- (2) Instrumental music (15 semester hours)
Music 3035, 3236.
Music Education 4232.
Applied music (on one instrument): 6 semester hours

15. SCIENCE

Endorsement may be obtained in (a) biology, (b) chemistry, (c) physics, (d) general science, and/or (e) a combination of sciences.

- (a) Biology (29 semester hours)
Biology 1200, 1600 (9 semester hours)
Biology, Genetics 3070 (4 semester hours)
Biology, Bacteriology 3500 (4 semester hours)
Biology, Ecology 3050 (4 semester hours)
Chemistry 1111, 1112 (8 semester hours)
- (b) Chemistry (28 semester hours)
Chemistry 1111, 1112 (8 semester hours)
Chemistry 3311, 3312 (8 semester hours)
Chemistry, Analytical (4 semester hours)
Physics (8 semester hours)
- (c) Physics (28 semester hours)
Physics 2111, 2112 *or* 2511, 2512 (8-10 semester hours)
Physics electives (12-10 semester hours)
Chemistry (8 semester hours)
- (d) General Science (29 semester hours)
Chemistry 1111, 1112 (8 semester hours)
Biology 1200, 1600 (9 semester hours)
Physics 1111, 1112 *or* 2111, 2112 (6-8 semester hours)
Physics 4050 (3 semester hours)
Earth Science (3 semester hours)
- (e) Broad field of science (32 semester hours)
If a student earns a total of 32 semester hours or more in three of the following sciences, he may receive endorsement for each one in which he has earned a minimum of 12 semester hours: biology, chemistry, geology, physics.

16. SOCIAL STUDIES

Endorsement may be obtained in (a) economics, (b) geography, (c) government, (d) history, (e) sociology, and/or (f) a combination of two or more of these in the broad field of social studies.

- a. Economics (15 semester hours)
Economics 2110, 2120, and 9 additional semester hours in economics courses.
- b. Geography (15 semester hours)
Geography 2301, 2311, and 9 additional semester hours in geography courses.
- c. Government (15 semester hours)
Political Science 1101, 1301, 2211, 2221, and 3 additional hours in political science courses.
- d. History (21 semester hours)
History 1301, 1302, 2601, 2602, and 9 additional semester hours which must include a two-semester upper-division sequence course in history.
- e. Sociology (15 semester hours)
Sociology 1111 and 12 additional semester hours in sociology courses.

- f. With a total of 30 or more semester hours earned in social science courses (including a minimum of 15 semester hours in history) endorsement may be earned for each area in which one has a minimum of 12 semester hours credit. Required courses for each area:
 - History 1301, 1302 and 9 hours of history electives
 - Economics 2110, 2120, and 6 hours of economics electives
 - Geography 2301, 2311, and 6 hours of geography electives
 - Political Science 2211, 2221, and 6 hours of political science electives
 - Sociology 1111, and 9 hours of electives in sociology
- 17. SPEECH (24 semester hours)
 - Speech 1311, 1411, 1551, 2321, 2511, 4921, 4922, and 3 additional semester hours in speech courses.
- 18. VOCATIONAL AND DISTRIBUTIVE EDUCATION
(See Distributive Education)

Part Eight

THE SCHOOLS AND DIVISIONS OF THE UNIVERSITY

THE SCHOOL OF ARTS AND SCIENCES

WALTER RHEA SMITH, B.A., M.A., Ph.D., *Dean*

HOWARD GRADEN KIRKSEY, B.S., Ph.D., *Assistant to the Dean*
Room 217, Administration Building

THE School of Arts and Sciences has three distinct functions within the framework of the University.

1) Its primary function is to offer a strong liberal arts program designed to help the student prepare himself for life in his own cultural setting by acquiring the means and the desire continually to enlarge his intellect and deepen his insights. "The purpose of education," wrote John Stuart Mill, "is to make capable and cultivated human beings. Men are men before they are lawyers, physicians, or manufacturers; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers and physicians." It is the earnest belief of The School of Arts and Sciences that the essential preparation for any profession or vocation is a thorough foundation in those major fields of human interest which are included in the humanities, the natural sciences, and the social sciences. The program of liberal studies at Memphis State University aims to provide the student with a store of factual knowledge; to introduce him to varying sets of principles; to stimulate him to think about and to evaluate these facts and principles; and to encourage him to order his own affairs and those of his society with the talent, insight, and discrimination which he develops.

2) The School of Arts and Sciences offers this kind of education, not only to the candidates for its own degrees, but also to the students of other schools of the University, all of whose degree plans call for courses in the liberal arts.

3) A third important function of the school is to offer preparatory courses for students interested in careers in medicine, dentistry, nursing, teaching, law, and other professions; specific pre-professional programs, designed to prepare students to qualify for admission to professional schools, are available.

DEGREES OFFERED

The School of Arts and Sciences offers six degrees: the Bachelor of Arts, the Bachelor of Science, the Bachelor of Fine Arts, the Bachelor of Music, the Bachelor of Science in Chemistry, and the

Bachelor of Science in Medical Technology. Requirements for these degrees are outlined in the section beginning on page 121.

ORGANIZATION OF THE SCHOOL

Departments. The School of Arts and Sciences comprises seventeen departments: Art, Biology, Chemistry, Classical Languages, English, Geography, History, Journalism, Mathematics, Modern Languages (French, German, Hebrew, Italian, Portuguese, Russian, Spanish), Music, Philosophy, Physics, Political Science, Psychology, Sociology and Anthropology, and Speech and Drama. Requirements for the majors and minors offered by these departments are listed in the section beginning on page 128.

Concentration groups. The various offerings of the seventeen departments of The School of Arts and Sciences are organized into three concentration groups:

HUMANITIES: art, English, French, German, Greek, history, Italian, journalism, Latin, mathematics, music, philosophy, psychology, Russian, Spanish, speech.

NATURAL SCIENCES: biology, chemistry, geology (administered by The Herff School of Engineering), physical geography, mathematics, physics.

SOCIAL SCIENCES: anthropology, economics (administered by The School of Business Administration), geography (other than physical), history, philosophy, psychology, political science, sociology.

Lower and Upper Divisions. The Lower Division comprises the freshman and sophomore years, the first four semesters of undergraduate work; courses in the lower division are numbered from 1000 through 2999. The Upper Division comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the Upper Division are numbered above 2999. Students who have completed the required number of hours and the required residence to be classified as juniors, but who have not completed their basic requirements in the Lower Division, must schedule these uncompleted requirements during the first semester in which such courses are available.

ADMISSION

All applicants for admission to The School of Arts and Sciences must meet the general University requirements listed in the section beginning on page 66. In addition, students who plan to become candidates for degrees in The School of Arts and Sciences must meet the following requirements:

Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry. In order to be admitted to the Lower Division of The School of Arts and Sciences as a candidate for one of the preceding degrees the student must have graduated from an approved high school with at least 15 units, divided as follows: English, at least 3 units; mathematics, at least 2 units; foreign language, at least 2 units in one language; the remainder to be chosen from other high school units, with not more than 3 from vocational subjects. It is strongly urged that the elective units be concentrated in the humanities, the natural sciences, and the social sciences. (If the student offers only one unit in mathematics, he may be admitted to the Lower Division, but will be required to complete successfully Mathematics 1181 or 1201.)

Bachelor of Fine Arts, Bachelor of Music, and Bachelor of Science in the Medical Technology. In order to be admitted to the lower division of The School of Arts and Sciences as a candidate for one of the preceding degrees, the student must have graduated from an approved high school with at least 15 units, divided as follows: English, at least 3 units; mathematics, at least 2 units; the remainder to be chosen from other high school units, with not more than 4 from vocational subjects. It is strongly urged that the elective units be concentrated in the humanities, the natural sciences, and the social sciences. (If the student offers only one unit in mathematics, he may be admitted to the Lower Division, but will be required to complete successfully Mathematics 1181 or 1201.)

RESIDENCE REQUIREMENTS

University residence requirements are explained in detail on page 106. A transfer student in The School of Arts and Sciences must earn at least 6 semester hours in residence in his major subject and at least 3 semester hours in his minor.

FOREIGN LANGUAGE REGULATIONS

1. A student who has completed one or more units in high school in one foreign language may not receive credit at Memphis State University for the corresponding semester or semesters in that language (one high school unit is the equivalent of one semester.) For example, if a student has completed one unit of French in high school, he may not receive credit for French 1101; if he has completed four units of French in high school, he may not receive credit for French 1101, 1102, 2201, or 2202.

2. A student may not receive credit for anything less than *two*

semesters (six semester hours) in beginning courses (1101, 1102) in one foreign language. For example, he will receive no credit, elective or otherwise, for French 1101 unless he completes French 1102 or a higher numbered course in French; if he begins his study with French 1102, he will receive no credit for the 1102 unless he completes French 2201 or a higher numbered course in French. Credit will be allowed for a single semester's work in courses numbered above 1999, and for single courses in Hebrew.

3. Foreign-born students may receive credit for courses in their mother tongue and its literature only (1) for courses taken in native institutions of college level, or (2) for upper-division courses taken at Memphis State University or in another English-speaking institution of approved standing.

4. Specific requirements in foreign languages for the degrees offered by The School of Arts and Sciences are as follows:

A. *BACHELOR OF ARTS*: three years (eighteen semester hours), or the equivalent, in one foreign language. (Greek 1101 and 1102 may be substituted for six semester hours of upper-division Latin; six semester hours of Latin may be substituted for six semester hours of upper-division Greek). If the student elects to continue the study of the same foreign language which he studied in high school, the following regulations apply:

- 1) If he had one unit of one foreign language in high school, he must complete 15 semester hours in courses numbered above 1101 in that language.
- 2) If he had two units of one foreign language in high school, he will fulfill the requirements with 12 semester hours in that language in courses numbered above 1999.
- 3) If he had three units of one foreign language in high school, he will fulfill the requirements with 9 semester hours in that language in courses numbered above 2201.
- 4) If he had four units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 2999.

B. *BACHELOR OF SCIENCE*: two years (twelve semester hours), or the equivalent, in one foreign language. If the student elects to continue the study of the same foreign language which he studied in high school, the following regulations apply:

- 1) If he had one unit of one foreign language in high school, he must complete 9 semester hours in courses numbered above 1101 in that language.
- 2) If he had two units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 1999.
- 3) If he had three units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 2201.
- 4) If he had four units of one foreign language in high school,

he will fulfill the requirements with 6 semester hours in that language in courses numbered above 2999.

C. *BACHELOR OF FINE ARTS, BACHELOR OF MUSIC, BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY*: one year (six semester hours) in one foreign language. If the student elects to continue the study of the same foreign language he studied in high school, the following regulations apply:

- 1) If he had one unit of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 1101.
- 2) If he had two units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 1999.
- 3) If he had three units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 2201.
- 4) If he had four units of one foreign language in high school, he will fulfill the requirements with 6 semester hours in that language in courses numbered above 2999.

D. *BACHELOR OF SCIENCE IN CHEMISTRY*: German 1101, 1102, 2201, and 2203.

PRE-PROFESSIONAL TRAINING

Standing committees of the faculty are available to advise students interested in preparing for careers in various professional areas; committee members, representing departments of the University in which pre-professional training is given, advise students concerning specific programs required by the various professional schools. A student who completes successfully six semesters of undergraduate work before entering an accredited professional school may, upon presentation of evidence of satisfactory completion of the first year of professional education, be granted a baccalaureate degree from Memphis State University provided that the requirements set forth in the pre-professional degree program described on page 107 are met. The advisory committees are as follows:

Pre-Medical (Professor Elmore Holmes, chairman). This committee advises students interested in careers in medicine, dentistry, nursing, pharmacy, optometry, veterinary medicine, medical technology, and related fields in the health sciences.

Pre-Law (Dean Robert D. Cox and Professor Erwin Clyde Buell, co-chairmen). In general, accredited law schools have not adopted specific requirements for pre-law education; they do, however, emphasize certain courses as being conducive to the development of the broad cultural background necessary for the successful study of law. Students enrolling in The School of Arts and Sciences for their pre-law training are encouraged to enter immediately one of the degree programs offered by the school.

Pre-Architecture (Professor Dana Johnson, Chairman). The University offers a two-year pre-architecture program, including specialized courses designed for students who plan to enter schools of architecture as well as for those whose career plans require the completion of such courses.

Pre-Social Work (Professor Charles Newton, Chairman). The student who wishes to prepare for admission to a graduate school of social work or who plans to go directly from college into a social work program will complete the requirements for the baccalaureate degree with a major in either sociology or psychology; specialized courses will be chosen in conference with the adviser.

TEACHER PREPARATION

Students enrolled in a degree program of The School of Arts and Sciences who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Detailed certification requirements are outlined in the section beginning on page 108. Application to enter the program of teacher preparation must be made in the office of the dean of The School of Education.

REQUIREMENTS FOR THE DEGREES

BACHELOR OF ARTS

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 42 semester hours in any one subject will be counted toward a degree. Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be taken outside The School of Arts and Sciences except for courses required for either (1) the minor *or* (2) teacher certification, but not both. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: 18 semester hours, or the equivalent, in one foreign language; for details see page 118.

History 2601, 2602.

One semester of one natural science, and one two-semester sequence in a second natural science.

(Courses from which these must be selected are Biology 1200, 1600; Chemistry 1051, 1052; *or* Chemistry 1111, 1112; Geography 1101, Geology 1101; Geology 1101, 1201, (not more than two semesters may be taken in geography and/or geology courses to meet this requirement); Physics 1111, 1112, *or* 2111, 2112, *or* 2511, 2512.

One semester of one social science, and one two-semester sequence in each of two other social sciences. (15 semester hours)

(Courses from which these must be selected are Anthropology 1100, 1200; Economics 2110, 2120; Geography 2301, 2311; History 1301, 1302; Political Science 2211, 2221; Psychology 1101, 1102; Sociology 1111, 2112.

Mathematics 1111, 1112; *or* 1211, 1212; *or* 1321, 2321; *or* Philosophy 1111, 1611.

Two of the following courses: Art 1101; Music 1131; Speech 1551. Air Force ROTC (for men): for details see page 105.

Physical Education: 2 to 4 semester hours; for details see page 105.

Completion of requirements for any major offered in The School of Arts and Sciences.

Completion of requirements for a minor in any subject (other than the major) offered by any department of the University.

Electives to bring the total to 132 semester hours.

BACHELOR OF SCIENCE

The Bachelor of Science degree may be awarded only to students majoring in one of the following disciplines: anthropology, biology, chemistry, geography, geology, mathematics, physics, or psychology. Students majoring in anthropology, geography, or psychology (for the Bachelor of Science degree) must minor in either biology, chemistry, mathematics, or physics.

To qualify for the degree of Bachelor of Science the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be taken outside The School of Arts and Sciences except for courses required for either (1) the minor, *or* (2) teacher certification, but not both. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: 12 semester hours, or the equivalent in one foreign language; for details see page 118.

History 2601, 2602.

Biology 1200, 1600.

Mathematics 1111, 1112; 1211, 1212; *or* 1321, 2321.

One of the following two-semester sequences: Chemistry 1051, 1052;

or Chemistry 1111, 1112; Geography 1101, Geology 1101; Geology 1101, 1201; Physics 2111, 2112; Physics 2511, 2512.

Two of the following two-semester sequences: Anthropology 1100, 1200; Economics 2110, 2120; Geography 2301, 2311; History 1301, 1302; Philosophy 1111, 1611; Political Science 2211, 2221; Psychology 1101, 1102; Sociology 1111, 2112.

Two of the following courses: Art 1101; Music 1131; Speech 1551.

Air Force ROTC (for men): for details see page 105.

Physical Education: 2 to 4 semester hours; for details see page 105.

Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, geography, geology, mathematics, physics, or psychology.

Completion of the requirements for a minor in any subject (other than the major) offered by any department in the University. EXCEPTION: Students majoring in anthropology, geography, or psychology (for a Bachelor of Science degree) must minor in either biology, chemistry, mathematics, or physics.

Electives to bring the total to 132 semester hours.

BACHELOR OF SCIENCE IN CHEMISTRY

To qualify for the degree of Bachelor of Science in Chemistry, the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the Upper Division (those numbered above 2999). Not more than 18 semester hours (excluding required physical education and AF-ROTC courses) may be in courses outside The School of Arts and Sciences except for courses required for teacher certification. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

Foreign language: German 1101, 1102, 2201, and 2203.

History 2601, 2602.

Mathematics 1212, 1321, 2321, 2322.

Physics 2111, 2112 (by permission); or 2511, 2512.

Chemistry 1111, 1112, 2200, 3311, 3312, 3411, 3412, 4200, 4210, 4220, 4310, 4900, 4910.

One semester of one social science and one two-semester sequence in another social science. (Courses from which these must be selected are Anthropology 1100, 1200; Economics 2110, 2120; Geography 2301, 2311; Political Science 2211, 2221; Psychology 1101, 1102; Sociology 1111, 2112).

One of the following courses: Art 1101; Music 1131; Speech 1551.

Air Force ROTC (for men only); for details see page 105.

Physical education (2 or 4 semester hours); for details see page 105.

Completion of the requirements for a minor in biology, physics or mathematics.

Electives to bring the total to 132 semester hours.

BACHELOR OF FINE ARTS

The Bachelor of Fine Arts is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in art than he has under the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, 90 of which must be in art courses. A minimum grade of C is required in all art courses; the student must maintain an overall quality point average of 2.0 (on scale in which a grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). The specific degree requirements are divided into five groups; (1) general education, (2) basic art courses, (3) courses in *one* of the four concentration areas; (4) elective courses in art; and (5) elective courses other than art (but within The School of Arts and Sciences) to bring the total to 142 semester hours.

(1) General education courses

English 1101, 1102, 2101, 2102

Foreign language: for details see page 118

History 2601, 2602

One two-semester sequence course (six semester hours or more) in biology, chemistry, geology, mathematics, or physics

Air Force ROTC (for men only); for details see page 101

Physical Education (2 or 4 semester hours); for details see page 105

(2) Basic art courses

Art 1311, 1314, 2313 (Drawing)

Art 1201, 1204, 2201, 2202 (Design)

Art 2101, 2102 (Art History)

Art 4611 (Seminar)

Art History: 12 semester hours in upper-division art history courses. (Interior Design majors are required to take Art 3101, 3102)

(3) Concentration areas. (Choose a, b, c, d, or e.)

a. Painting

Art 2314, 2321, 4321, 4322 (Drawing and Painting)

Art 2351, 3351, 3352 (Graphics)

Art 3333 and 3334 (Casein)

Art 3331, 3332, 4331, 4332 (Oil)

b. Graphic Techniques

Art 2314, 2321, 4321, 4322 (Drawing and Painting)

Art 2351, 3351, 3352, 4351, 4352 (Graphics)

Art 3333 and 3334 (Casein)

Art 3331, 3332 (Oil)

c. Commercial Art

Art 1211 and 2213 (Lettering and Layout)

- Art 2311 (Perspective)
- Art 3221, 3222, 4221, 4222 (Advertising Design)
- Art 3223 and 3541 (Packaging and Display)
- Art 4321, 4322 (Drawing and Painting)
- Art 4341, 4342 (Illustration)
- d. Interior Design
 - Art 2311 (Perspective)
 - Art 2231, 2232, 3231, 3232, 4231, 4232 (Interior Design)
 - Art 4233, 4234 (Interior Rendering)
 - Art 4235, 4236 (Interior Design Research)
 - Art 4551, 4552 (Working Drawings)
- e. Sculpture
 - Art 2511, 3511, 3512, 4511, 4512 (Sculpture)
 - Art 2314, 2321, 4321, 4322 (Drawing and Painting)
 - Art 3521, 3522 (Ceramics)
 - Art 3513, 3514 (Ceramic Sculpture)
- (4) Art electives: 9 semester hours
- (5) Elective courses other than art (but within The School of Arts and Sciences) to complete the total of 142 semester hours. These courses will be chosen by the student in consultation with his adviser and the chairman of the Department of Art.

BACHELOR OF MUSIC

The Bachelor of Music is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in music than he has under the other baccalaureate programs; as many as 92 of the 132 semester hours required for graduation may be in music. A minimum grade of C is required in all upper-division music courses; the student must maintain an over-all quality point average of 2.0 (on a scale in which a grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). The specific degree requirements are divided into five groups: (1) general education, (2) basic music courses, (3) courses in *one* of six concentration areas, (4) music electives, and (5) elective courses other than music and music education to bring the total to 132 semester hours.

Detailed requirements are as follows; figures in parentheses indicate semester hours credit.

- (1) General education courses
 - English 1101, 1102, 2101, 2102 (12)
 - Foreign language: for details see page 118
 - History 1301, 1302, 2601, 2602 (12)
 - One two-semester sequence course (six semester hours or more) in biology, chemistry, geology, mathematics, or physics
 - Air Force ROTC (for men only); for details see page 105
 - Physical Education (2 or 4); for details see page 105

- (2) Basic music courses
 - Music 1041, Introduction to Music (4)
 - Music Theory I and II (16)
 - Music 3031, Counterpoint (3)
 - Music 3033, Form and Analysis (3)
 - Music 3235, Choral Conducting (3)
 - Music 3131, 3132, History of Music (6)
 - Music ensembles (8)
 - Individual instruction in piano, organ, voice, or orchestral instrument (8)
 - Piano proficiency (see page 272 for details)
- (3) Concentration areas. Choose a, b, c, d, e, *or* f
 - a. Instrumental music (piano, organ, string, or wind instrument)
 - Individual instruction in major instrument (8)
 - Recital
 - Music 3035, Instrumentation (3)
 - Small Ensembles and Chamber Music (4)
 - b. Voice
 - Individual instruction in voice (8)
 - Recital
 - Individual instruction in piano (4)
 - Small Ensembles (opera workshop, madrigal group, etc.) (4)
 - Music 3236, Conducting and Score Reading (3)
 - Foreign language, in addition to the six semester hours required in the general education group (12)
 - c. Music Theory and Composition
 - Music Education 1311, 1312, 1511, 1711, 1712, 1911, 1912
(Class instruction in brass, percussion, strings, and woodwinds) (7)
 - Music 3021 and 3022, Canon and Fugue (4)
 - Music 3023, 3024, 4021, 4022, Composition I and II (8)
 - Music 3035, Instrumentation (3)
 - Recital or thesis
 - d. Music History and Literature
 - Music 4131, Comparative Arts (3)
 - Music 4132, Modern Music (3)
 - Music 4133, The Opera and Music Drama (3)
 - Music 4134, Piano History, Literature, and Pedagogy (3)
 - Art 2101, 2102, World Art I and II (6)
 - Art 3161, 3162, Art in America I and II (6)
 - English 3411, World Literature I (3)
 - Foreign language, in addition to the six semester hours required in the general education group (6)
 - Recital or thesis
 - e. Music Education
 - Music 3035, Instrumentation (3)
 - Music 3236, Conducting and Score Reading (3)
 - Materials and methods: courses to be selected with adviser's approval (6-9)

Applied music to meet certification requirements
 Courses in the Department of Curriculum and Instruction
 to meet certification requirements (24)

Courses in general education to meet certification requirements (15)

Recital

f. Church Music

Music Education 1311, 1711, 1911, class instruction in brass, string, and woodwind instruments (3)

Music 3035, Instrumentation (3)

Music 3236, Conducting and Score Reading (3)

Music 4135, 4136, Sacred Music I and II (6)

English 4461, Biblical Literature (3)

Two courses from the Department of Philosophy (6)

Recital or direction and public presentation of a cantata

- (4) Music electives: at least six semester hours in upper-division music courses selected from a concentration area other than the one chosen for the major.
- (5) Elective courses other than music and music education to bring the total to 132 semester hours. These courses will be chosen by the student in consultation with his adviser and the chairman of the Department of Music.

BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY

For students interested in careers in medical technology, The School of Arts and Sciences offers a three-year preparatory curriculum, the successful completion of which will qualify them to enter any accredited school of medical technology for clinical training which would result in eligibility for registry. Locally the University maintains an affiliation with the schools of medical technology of the Baptist Memorial Hospital and the Methodist Hospital, both of which are fully accredited. Should a student decide to enter either of these schools after completing successfully the preparatory curriculum, he may, after one year of clinical training and two additional courses in biochemistry (the lecture sessions only) taken on this campus, apply for the degree of Bachelor of Science in Medical Technology from this University; he would also, of course, be eligible for registry. A student who wishes to pursue this degree plan must file a degree program with the dean of The School of Arts and Sciences no later than the first semester of his sophomore year; he should confer with the chairman of either the Department of Biology or the Department of Chemistry concerning the choice of a major and a minor.

Specific requirements for the preparatory curriculum in medical technology (and the additional requirements for those working toward a baccalaureate degree) are as follows:

English 1101, 1102, 2101, 2102

Foreign language; see page 118 for details

History 2601, 2602

Psychology 1101

Psychology 1102 or Sociology 1111

Physics 2111 and 2112

Mathematics 1211; or Mathematics 1212

Biology 1200, 1600, 3500 (or 3730), 3800 (or 4620); the student working toward the baccalaureate degree will, in his third year, elect one additional upper-division biology course approved by the department chairman.

Chemistry 1111, 1112, 2000, 2010, 3311, 3312; the student working toward the baccalaureate degree will, in his fourth year, take Chemistry 4011 and 4012, lecture sessions only.

Air Force ROTC (for men only); see page 105 for details

Physical Education; see page 105 for details

Electives: 6 semester hours in the third year; the student working toward the baccalaureate degree will take an upper-division biology course to fulfill 3 semester hours of this requirement.

A curriculum schedule, showing the semester in which each of these courses should be taken, may be obtained from members of the Pre-Medical Advisory Committee.

IMPORTANT NOTE: The preparatory curriculum in medical technology does NOT qualify a student for the three-year pre-professional degree program described on page 107 of this catalog. Only those students who enroll in the schools of medical technology of the Baptist Memorial Hospital or the Methodist Hospital, both located in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.

DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

Listed below are the specific course requirements for all majors and minors offered in The School of Arts and Sciences. A minimum grade of C is required in every course applicable toward a major or a minor (including corequisites), except in beginning courses and in sophomore English.

Every student should be aware that the mere completion of courses outlined below with a grade of C or better does not guarantee him classification as a major or minor in the discipline concerned; *he must be recommended by the chairman of the department in which the major or minor is sought.* If, in the opinion of the chairman, the quality of the student's work is not high enough, he may require additional work, the repetition of courses, or other evidences of superior scholarship.

ANTHROPOLOGY (See SOCIOLOGY AND ANTHROPOLOGY)

ART (*The requirements listed below are for the major and minor in art for the Bachelor of Arts degree; for detailed requirements for the Bachelor of Fine Arts, a professional degree, see page 124*)

The Major: The Department of Art offers two majors, one in art history and one in art education; the requirements are as follows:

- a. Art History: 36 semester hours in art history courses, including Art 2101, 2102, 3161, 3162, and 4611, and 21 additional semester hours, 9 of which must be from the upper division.
- b. Art Education: 36 semester hours in art, including Art 1101, 1311, 1314, 1201, 1204, 3411, 3161, 3531, and 12 additional semester hours, 6 of which must be from the upper division.

The Minor: 24 semester hours in art courses, 9 of which must be from the upper division.

BIOLOGY

The Major: 36 semester hours in biology courses, 18 of which must be from the upper division; the student will elect *one* of the following areas of concentration and meet the specific requirements outlined below:

- a. Botany
Biology 1200, 1600, 3070, 3240, 3500
Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36, including one field course
Chemistry 1111 and 1112 or the equivalent
- b. Zoology
Biology 1200, 1600, 3070, 3610, 3620
Biology electives (chosen in conference with the adviser) to bring the total semester hours in biology to 36.
Chemistry 1111 and 1112 or the equivalent

The Minor: 18 semester hours in biology courses (including Biology 1200 and 1600), 7 of which must be from the upper division

CHEMISTRY: (*The requirements listed below are for majors and minors for the Bachelor of Arts or Bachelor of Science degrees; for detailed requirements for the Bachelor of Science in Chemistry, a professional degree, see page 123.*)

CHEMISTRY

The Major: 32 semester hours in chemistry courses, plus related courses, outlined below:

Chemistry 1111, 1112, 2200, 3311, 3312, and 12 additional semester hours in chemistry courses numbered above 2999. (Chemistry 2000 and 2010 may be substituted for Chemistry 2200.)

Mathematics 1212, 1321, 2321, 2322

Physics 2511, 2512 (or 2111, 2112 if approved by the chairman of the Department of Chemistry.)

The Minor: 20 semester hours in chemistry courses, including Chemistry 1111, 1112, 2200 (or a 4 semester-hour course from the upper division), 3311, 3312

PHYSICAL SCIENCE

A major in physical science is suggested for those students who plan to teach the sciences in high school but do not desire to major in either chemistry or physics.

The Major: 32 semester hours in chemistry and physics courses, including Chemistry 1111, 1112; Physics 2511, 2512 (or Physics 2111, 2112); and additional hours in chemistry and/or physics courses from the upper-division to bring the total to 32 semester hours.

The Minor: 20 semester hours in chemistry and/or physics courses, of which at least 8 semester hours must be from the upper-division.

CLASSICAL LANGUAGES

The Major in Latin: 12 semester hours in upper-division Latin courses

The Minor in Latin: 6 semester hours in upper-division Latin courses

ECONOMICS

The Major: 30 semester hours including Economics 2110, 2120, 3610, 4310, 4320; Management 3711 (or Mathematics 2611 or 3651), and 12 additional semester hours in economics courses from the upper division as approved by the department chairman.

The Minor: 18 semester hours in economics courses, including Economics 2110, 2120, 3610, 4310 (or 4320), and 6 additional semester hours from the upper division as approved by the department chairman.

ENGLISH

The Major: 24 semester hours in upper-division English courses, including hours as specified from each of the following groups, each student's program to be arranged so as to provide the greatest possible chronological scope:

- I. Language (3): English 3501.
- II. American Literature (3): English 3321 or 3322.
- III. English Literature
 - A. (3): English 3211, 3212, 3213, or 3214.
 - B. (3): English 3221, 3222, 3223, or 3224.
- IV. Major Authors (3): English 4231 or 4234.
- V. Shakespeare (3): English 4232 or 4233.
- VI. Genre (3): English 3341, 3342, 4241, 4242, 4251, 4252, or 4351.
- VII. One additional upper-division English course (3), selection to be made with approval of adviser in light of choices made from first six groups.

NOTE: Students who wish to satisfy the requirements for both the English major and for endorsement to teach English in high school within the minimum of 24 hours must choose English 3321 from Group II; English 3214 from Group III A; English 3221, 3222, or 3223 from Group III B; and English 3322 from Group VII.

The Minor: 15 semester hours in upper-division English courses, including hours as specified from each of the following groups:

- I. Language (3): English 3501.
- II. American Literature (3): English 3321 or 3322.
- III. English Literature (3): English 3214, 3221, 3223, or 3224.
- IV. Shakespeare (3): English 4232 or 4233.
- V. One additional upper-division English course (except one from the century chosen in the Group III option) (3).

FRENCH (See MODERN LANGUAGES)

GEOGRAPHY

The Major: 25 to 29 semester hours in geography courses, including Geography 1101, 1102 (or Geology 1101), 2301, 2311, and 15 additional semester hours from the upper division.

The Minor: 19 to 23 semester hours in geography courses, including Geography 1101, 1102 (or Geology 1101), 2301, 2311, and 9 additional semester hours from the upper division.

GEOLOGY

The Major: 36 semester hours in geology courses, including Geology 1101, 1201, 2311, 2312, 2512, 3211, 3311, 3712, and 9 additional semester hours from the upper division as approved by the adviser.
Chemistry 1111 and 1112.
Mathematics 1321.
Physics 2511, 2512 (or 2111, 2112 if approved by department chairman).

The Minor: 18 semester hours in geology courses, including Geology 1101, 1201, and 10 additional semester hours.

GERMAN (See MODERN LANGUAGES)

HISTORY

The Major: 30 semester hours in history courses, including History 1301, 1302, 2601, 2602, and 18 additional semester hours from the upper division with a maximum of 12 semester hours in any one field (United States, Latin American, European, African, Far Eastern).

The Minor: 24 semester hours in history courses, including History 1301, 1302, 2601, 2602, and 12 additional semester hours from the upper division.

JOURNALISM

The Major: The Department of Journalism offers a choice of three majors: news-editorial, advertising, and radio-television journalism; the requirements are as follows:

- a. News-editorial: 30 semester hours in journalism courses, including Journalism 1011, 1012, 2111, 2112, 3112, 3114, 4222, and 9 additional semester hours from the upper division.
- b. Advertising: 30 semester hours in journalism and related courses, including
Journalism 1011, 1012, 2211, 3221, 3222, 4221, 4222

Marketing 3010

Art 3221

One of the following courses: Art 3222, 3223, 4221;
Marketing 3140, 3150, 3160

c. Radio-television journalism: 30 semester hours in journalism and related courses, including

Journalism 1011, 1012, 2111, 2112, 3221, 3331, 3332, 3333

Marketing 4120

Speech 3841

The Minor: 18 semester hours in journalism courses, including Journalism 1011, 1012, 2111, and 9 additional semester hours, 6 of which must be from the upper division.

LATIN (See CLASSICAL LANGUAGES)

MATHEMATICS

The Major: A minimum of 33 semester hours in mathematics courses including Mathematics 1321, 2321, 2322, 3111, 3112, and 12 additional semester hours from the upper division. Chemistry 1111 and 1112; or Physics 2111 and 2112; or Physics 2511 and 2512.

The Minor: 18 semester hours in mathematics courses, including either Mathematics 1321, 2321, 2322, or 6 semester hours from the upper division.

MODERN LANGUAGES: The Department of Modern Languages offers majors and minors in French, German, and Spanish.

Requirements for the majors and minors are as follows:

FRENCH

The Major: 18 semester hours in upper-division French courses, including French 3411 and 3412.

The Minor: 12 semester hours in upper-division French courses.

GERMAN

The Major: 18 semester hours in upper-division German courses, including German 3411 and 3412.

The Minor: 12 semester hours in upper-division German courses.

SPANISH

The Major: 18 semester hours in upper-division Spanish courses, including Spanish 3411, 3412, 3511, and 3512.

The Minor: 12 semester hours in upper-division Spanish courses.

MUSIC. *The requirements listed below are for the major and minor in music for the Bachelor of Arts degree; for detailed requirements of the Bachelor of Music, a professional degree, see page 125*

For requirements for the major and minor in music education, see page 159. For details of piano proficiency requirements, see page 272.

The Major: 39 semester hours in basic music courses plus the completion of the requirements for one concentration area; specific courses are outlined below:

- a. Basic music courses (39 semester hours)
Music 1041; 1032 (and 1012), 1033 (and 1013), 2034 (and 2014), 2035 (and 2015); 3031, 3033, 3035 (or 3235); 3131, 3132; and 4 semester hours of individual instruction in piano, organ, voice, or orchestral instrument.
- b. Concentration areas (choose one)
 1. Applied Music (4 semester hours)
4 semester hours of individual instruction in upper-division courses
Recital
 2. Music Theory and Composition (8 semester hours)
Music 3021, 3022, 3023, and 3024
 3. Music History and Literature (9 semester hours)
Three of the following courses: Music 4131, 4132, 4133, 4134
 4. Church Music (9 semester hours)
Music 3236, 4135, 4136

The Minor: 22 semester hours in basic music courses plus the completion of the requirements for *one* concentration area; specific courses are outlined below:

- a. Basic music courses (22 semester hours)
Music 1041; 1032 (and 1012), 1033 (and 1013); 3131, 3132; and 4 semester hours of individual instruction in piano, organ, voice, or orchestral instrument.
- b. Concentration areas (choose one)
 1. Applied Music (4 semester hours)
4 semester hours of individual instruction in upper-division courses
 2. Music History and Literature (6 semester hours)
Two of the following courses: Music 4131, 4132, 4133, 4134
 3. Church Music (9 semester hours) Music 3235, 3236, 4135 (or 4136)

PHILOSOPHY:

The Major: 30 semester hours in philosophy courses, including Philosophy 1111 (or 1221), 1611, 2211, 2311, 2411 (or 2511), and 15 additional semester hours, at least 9 of which must be from the upper division.

The Minor: 21 semester hours in philosophy courses, including Philosophy 1111, 1611, and 15 additional semester hours, at least 6 of which must be from the upper division.

PHYSICAL SCIENCE: (See CHEMISTRY)

PHYSICS:

The Major: 32 semester hours in physics courses, including Physics 2511, 2512 (Physics 2111, 2112 are acceptable but not recommended) and additional upper-division courses to bring the total to 32 semester hours.

Chemistry 1112 or Biology 1600

Mathematics 2322 and 6 semester hours in mathematics courses numbered above 2322

The Minor: 20 semester hours in physics courses, including Physics 2511, 2512 (Physics 2111, 2112 are acceptable but not recommended), and additional upper-division courses to bring the total to 20 semester hours.

POLITICAL SCIENCE

The Majors:

Political Science: 30 semester hours in political science courses, including Political Science 1101, 1301, 2211, 2221, and 18 additional semester hours from the upper division, at least 6 semester hours of which must be theory courses.

Public Administration: 30 semester hours in political science courses, including Political Science 1101, 1301, 2211, 2221, and 18 additional semester hours from the upper division, including 6 semester hours of theory courses and 12 semester hours chosen from the following: Political Science 3224, 3601, 3602, 4224, 4601, 4604.

The Minor: 18 semester hours in political science courses, including Political Science 1101, 1301, 2211, 2221, and at least 6 additional semester hours from the upper division.

PSYCHOLOGY

The Major: 25 semester hours in psychology courses, including Psychology 1101, 1102, 2301, 3201, 3202, and 9 additional semester hours, at least 6 of which must be from the upper division.

The Minor: 18 semester hours in psychology courses, at least 6 semester hours of which must be from the upper division.

SOCIOLOGY AND ANTHROPOLOGY

SOCIOLOGY

The Major: 30 semester hours in sociology courses, including Sociology 1111, 2112, 3311, 4211, and 18 additional semester hours, at least 15 of which must be from the upper division. No more than three semester hours toward a major will be accepted from the social-work courses, Sociology 2911, 3912, 3913.

The Minor: The department offers a choice of two minors, one in sociology and one in industrial sociology; the requirements are as follows:

- a. *Sociology:* 18 semester hours in sociology courses, including Sociology 1111, and 15 additional semester hours from the upper division.
- b. *Industrial Sociology:* 18 semester hours in sociology courses, including Sociology 1111, 3841, 4842, 4843, and 6 additional semester hours from the upper division.

ANTHROPOLOGY

The Major: 24 semester hours in anthropology courses, including Anthropology 1100, 1200, 4065, 4995, and 12 additional semester hours, at least 9 of which must be from the upper division.

The Minor: 18 semester hours in anthropology courses, including Anthropology 1100, 1200, and 4065.

SPANISH: (*See MODERN LANGUAGES*)

SPEECH AND DRAMA: The Department of Speech and Drama offers majors in general speech, rhetoric and public address, radio and television, speech pathology, audiology, and theatre and oral interpretation. Majors are encouraged to participate in the activities of the department.

The Majors:

General Speech: 36 semester hours in speech courses, including Speech 1211, 1311, 1411, 1551, 2311, 2511, 2531, 2811, 3301 *or* 3401 *or* 3501 (two semesters), and 10 additional semester hours from the upper division.

Rhetoric and Public Address: 32 semester hours in speech courses including Speech 1211, 1311 (*or* 2311), 2321, 3301 (two semesters), 3341, 4351, and 15 additional semester hours chosen from the following: Speech 2331, 3311, 3321, 3331, 4341, 4351, 4361, 4362, 4363, 4364, 4371, 4922.

Radio and Television: 32 semester hours in speech courses including Speech 1311 (*or* 1211), 1411, 1551, 2811, 2821, 3801 (two semesters), 3841, and 12 additional hours from the following courses: 3561, 3842, 3851, 3861, 4511, 4841, 4871.

Speech Pathology: 36 semester hours in speech courses including Speech 1311 (*or* 1211), 1411 (*or* 2531), 2611, 2621, 2631, 3641, 3651, 3661,, 3631 (*or* 3681), 4601, 4602, 4671.

Audiology: 36 semester hours in speech courses including Speech 1311 (*or* 1211), 1411 (*or* 2531), 2611, 2621, 2631, 3631, 3641, 3681, 4601, 4602, 4631, 4632.

Theatre and Oral Interpretation: 35 semester hours in speech and drama courses, including Speech 1211, 1311 (*or* 2311), 1411, 1551, 2511, 2531, 3401 *or* 3501 (two semesters), and 15 additional semester hours chosen from the following: Speech 2411, 2512, 2541, 3451, 3521, 3531, 3551, 3552, 3561, 4421, 4431, 4441, 4511, 4561, 4571, 4581, 4921. Specific course requirements for theatre emphasis or oral interpretation emphasis will be determined in conference with adviser. Theatre majors must obtain permission from adviser to work in theatres outside the University.

The Minor: 22 semester hours in speech courses, including Speech 1211, 1311, 1411, 2321, 2511, 3301 *or* 3401 *or* 3501, and 6 additional hours from the upper division.

Speech minor for Business Administration majors: 18 semester hours in speech courses, including Speech 1011, 1211, 2331, 3011, 3341, 4351.

Speech minor in Oral Interpretation: 18 semester hours in speech courses, including Speech 1211, 1411, 2411, 4421 (*or* 4431), and six hours chosen from the following: 3451, 3551, 3552, 4441, 4551, 4581.

THE SCHOOL OF BUSINESS ADMINISTRATION

HERBERT JOHN MARKLE, B.B.A., M.A., Ph.D., *Dean*
Room 100, The School of Business Administration Building

THE function of The School of Business Administration is to provide the basic education necessary to prepare a person to enter the profession of business. A significant characteristic of the school is that it provides for concentration in the basic areas of economics and business, not as a substitute for, but as a part of a broad liberal education. From forty to sixty per cent of the course work taken for the Bachelor of Business Administration degree is taken in such areas as the humanities, the natural and physical sciences, and the social sciences.

AREAS OF PROFESSIONAL TRAINING

The School of Business Administration offers a wide selection of general and specialized fields, each of which has programs designed to prepare students for a variety of careers:

Careers in Accountancy: Accounting is a vital activity in any business. The increased complexity of financial records resulting from federal regulations and the expanded use of automation necessitates a highly technical background for persons who prepare financial reports. The Department of Accountancy offers preparation in governmental, industrial, and public accounting. It administers the testing program of The American Institute of Certified Public Accountants, the national scope of which enables students to check their individual ratings with national averages. Graduates with a major in accounting are qualified to take the Certified Public Accountants' examination in Tennessee; students desiring a career in public accounting are encouraged to intern with a public accounting firm in their senior year.

Careers in Economics and Finance: A sound understanding of our economic system is a must for today's businessman. In addition, business employs the professional economist for forecasting and explaining the effect of changing economic variables. Many econ-

omists are employed by government for comparable reasons. Training in economics is designed to increase awareness of economic problems and encourage the student to analyze alternative solutions for himself.

Courses in finance are designed to prepare the student for careers in financial institutions, and the finance departments of business. Governmental finance broadens the student's understanding of important national and international problems and encourages the consideration of alternative solutions.

Careers in Management: The decisions of management in business are more and more being recognized as having broad implications extending beyond the individual firm. In recognition of this, the Department of Management offers the broad preparation necessary for future managers, with specialization in a number of important areas.

Careers in Marketing: One of the phenomena observed among college graduates is their frequent gravitation toward careers in marketing despite the field for which they prepared while in college. The Department of Marketing provides training for those who are interested in such areas as retailing, wholesaling, industrial marketing, purchasing, advertising, sales management, logistics, and marketing research. Careers in marketing provide a high degree of freedom, mobility, security, challenge, and monetary reward.

Students who wish to teach marketing (distributive education) in high schools, technical institutes, and junior colleges should minor in Distributive Education in The School of Education. Certification requirements are listed on page 108. For information concerning careers in this field students should see the chairman of the Department of Distributive Education.

Careers as Professional Secretaries: The value of a secretary, either man or woman, with a university degree is receiving increasing recognition by business executives; the same thing is true in the field of office management. Thorough training in both fields is provided by the Department of Secretarial Science and Office Management.

Careers in Business Education: Preparing students to teach business subjects in the secondary schools is an important function of The School of Business Administration. A student with a major in any one of the five departments of the school may qualify for a high school teaching certificate; he will minor in education and complete the certification requirements outlined on page 108. The chairman of the Department of Secretarial Science and Office

Management serves as adviser to all students in the School of Business Administration preparing for a career in business education.

THE PRE-LAW CURRICULUM

A student enrolled in The School of Business Administration who wishes to prepare himself for entrance to law school may qualify for the Bachelor of Business Administration degree by completing all the requirements of the pre-professional degree program outlined on page 107, and by completing successfully one year at a law school of an accredited university. He must (1) meet all the lower-division requirements of The School of Business Administration as outlined on page 140; (2) complete the required core courses in the upper division as outlined on page 141 (with the omissions as explained on that page); (3) select a major in either accountancy, economics, or management and meet the requirements listed in the section beginning on page 143; (4) select a minor in one of the other foregoing departments or some other department in the University, and meet the requirements as determined by the chairman of the department concerned; and (5) complete a minimum of 99 semester hours overall before entering law school. All upper-division courses taken in fulfillment of this program must be approved by the chairman of the department in which the student is majoring. Students frequently prefer to get the bachelor's degree before entering law school. In that case, any major in The School of Business Administration may be selected, and the regular program for that major, as outlined in the catalog, should be followed.

ORGANIZATION OF THE SCHOOL

The School of Business Administration comprises five departments: Accountancy, Economics and Finance, Management, Marketing, and Secretarial Science and Office Management. These departments offer a variety of majors and minors, the detailed requirements for which are listed in the section beginning on page 143.

The school is organized into a lower division and an upper division:

THE LOWER DIVISION comprises the freshman and sophomore years, the first four semesters of university work. Courses offered in the lower division are numbered from 1000 through 2999, and the student must register consistently for all lower division requirements until they are completed.

THE UPPER DIVISION comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999.

Courses in the 5000 series are open to seniors within 36 hours of graduation.

LABORATORY FACILITIES

The School of Business Administration provides thirteen laboratories for development of facility in business: five accounting laboratories with individual tables for students; six secretarial laboratories, four for typewriting and two for general secretarial and office practice; one laboratory for statistics, equipped with adding machines and calculators; and laboratory work on electronic data computers. In addition the facilities of the Bureau of Business Research are available for research laboratory training.

ADMISSION

The requirements for admission to The School of Business Administration are those set up for the University as a whole; see page 66.

A student who has attended another accredited college or university, or who has received correspondence and/or extension credit from such an institution, will be given credit for all acceptable residence work and for a maximum of 33 semester hours in acceptable correspondence and/or extension work. To be acceptable, a course must be approved by the Committee on Admissions and the quality point average must meet the minimum standards set by the University; see page 100 for details.

A student who transfers into The School of Business Administration from another school of the University will meet the requirements of the catalog in effect at the time of the transfer.

RESIDENCE REQUIREMENTS

A transfer student must be in residence at Memphis State University during his final semester before graduation and for at least one additional semester during his junior and senior years. He must take a minimum of 15 semester hours of work in the School of Business Administration, of which 9 or more must be in his major field. He must complete 6 or more semester hours in his minor. If the minor is in The School of Business Administration, the 6 hours may be a part of the required 15. Adjustments in major re-

quirements may be made where feasible, but only with the approval of the Dean of The School of Business Administration.

University residence requirements are explained in detail on page 106.

DEGREE REQUIREMENTS

The School of Business Administration offers the degree of Bachelor of Business Administration. To qualify for this degree the student must complete 132 semester hours with a quality point average of 2.0 (on a scale where A gives 4 quality points; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 48 must be in courses from the upper division (those numbered above 2999). A grade of C or better must be earned in every upper-division course applied toward satisfaction of the specific major and minor.

General requirements for the degree include the successful completion of (I) required courses in the lower division; (II) required courses in the upper division; (III) requirements for a major in The School of Business Administration; and (IV) requirements for a minor in either The School of Business Administration or another school of the University. A minimum of 40% of the hours required for the degree must be from outside business and economics (except for Principles of Economics) and a minimum of 40% of the hours required must be taken within the school. Required courses cannot be dropped except under very special conditions. Requirements are outlined in detail in the sections which follow.

I. REQUIRED COURSES IN THE LOWER DIVISION

(Figures in parentheses indicate semester hours credit. One-semester courses may be taken either semester.)

First Semester

English 1101 (3)
Speech 1011 (3)
A biological or physical science (3)
Management 1010 (3)
Physical Education (1)
Air Force ROTC 1111 (for men) (1)
An elective course (3)

Second Semester

English 1102 (3)
Mathematics 1212 or higher (3)
A biological or physical science (3)
Psychology 1101 (3)
Physical Education (1)
Air Force ROTC 1112 (for men) (2)
An elective course (3)

NOTES:

- a. The student who expects to major in accountancy may, with permission of his adviser enroll in Accounting 2010 and 2020 in his freshman year, taking Accounting 2720 (Laboratory) along with Accounting 2020.
- b. Typewriting ability is a basic requirement. Every student will enroll in a typewriting class during his first semester in The School of Business Administration or arrange to take a proficiency examination. If he fails the proficiency examination, he must enroll in a typewriting class the following semester; he must pass either the typewriting course or the test before he arrives at junior classification.
- c. The science requirement must be met by a two-semester sequence course. If mathematics is used as a science, the six hours required must be of a higher level than the course taken to meet the basic mathematics requirement. The courses taken must be of progressively greater difficulty.
- d. Air Force ROTC is required of all men except those excused by the Professor of Aerospace Studies; for details see page 105.
- e. If a student has had less than 2 units of high school mathematics, he should take Mathematics 1201 before Mathematics 1212. If a student has had 2 units of high school mathematics he should take Mathematics 1311 before Mathematics 1212. If a student has had 3 or more units of high school mathematics he should take Mathematics 1212. Mathematics 1212 or a more advanced course must be taken to meet the minimum mathematics requirement.

Third Semester

Accounting 2010 (3)
 English 2101 (3)
 History 2601 (3)
 Economics 2110 (3)
 Physical Education (1)
 Air Force ROTC 2211
 (for men) (2)
 An elective course (3)

Fourth Semester

Accounting 2020 (3)
 English 2102 (3)
 History 2602 (3)
 Economics 2120 (3)
 Management 2711 (3)
 Physical Education (1)
 Air Force ROTC 2212
 (for men) (1)
 An elective course (3)

NOTES:

- a. Accounting 3110 and 3120 may be taken by the student with credit in Accounting 2020.
- b. The student planning to major in secretarial science may start shorthand in the sophomore year.
- c. Men taking Air Force ROTC 2211 and 2212 may be excused from two semesters of Physical Education.
- d. If a student has credit in Accounting 2020 and Economics 2110, he may enroll in Management 3410 during his fourth semester.
- e. Marketing 3010 should be taken in the fourth semester by marketing majors and by all others who can fit it into their schedules (and who have completed Economics 2110 and are concurrently in Economics 2120.)

II. REQUIRED CORE COURSES IN THE UPPER DIVISION

Every student enrolled for the degree of Bachelor of Business Administration with the exceptions noted below, must complete successfully the following courses:

Economics 3610, Money and Banking I (3)
 Management 3010 and 3020, Business Law (6)
 Management 3410, Business Organization (3)
 Management 3711, Business Statistics II (3)
 Marketing 3010, Basic Marketing (3)
 Secretarial Science 3510, Business Communication (3)

NOTE: Students enrolled in the three-year pre-law curriculum will omit Management 3010 and 3020 and Marketing 3010.

III. THE MAJOR

With the assistance of his adviser, each student, not later than the beginning of his junior year, will select from the list below an area of specialization, called the major. After selecting his major the student will report to the dean of The School of Business Administration for assignment to a major professor in the department in which the major is offered. Listed below are the five departments of The School of Business Administration and the areas of specialization offered in each; the specific courses required by each department for the satisfaction of its majors are listed in the section beginning on page 143.

DEPARTMENT OF ACCOUNTANCY

- Governmental accounting
- Industrial accounting
- Pre-law curriculum
- Public accounting

DEPARTMENT OF ECONOMICS AND FINANCE

- Banking
- Business finance
- Economic analysis and research
- Economic theory
- Government finance
- Investments
- Pre-law curriculum

DEPARTMENT OF MANAGEMENT

- Business research
- Financial management
- General business management
- Insurance
- Personnel administration and industrial relations
- Pre-law curriculum
- Production management
- Real estate
- Transportation

DEPARTMENT OF MARKETING

- Advertising
- General marketing
- Marketing logistics
- Retailing
- Sales

DEPARTMENT OF SECRETARIAL SCIENCE AND OFFICE MANAGEMENT

- Office management
- Secretarial science

IV. THE MINOR

To broaden his background every student is required to complete sufficient work in an area other than his major to evidence some degree of specialization in that area. Two options are available:

- a. The minor in The School of Business Administration
If the student elects a minor from The School of Business Administration, he must choose one from a department other than the one in which his major is offered. The minor program must be approved by the chairman of the minor department early in the student's junior year; it must include a minimum of 9 semester hours of courses from the upper division. (A student whose major is in another school of the University and who wishes a minor in The School of Business Administration may choose a minor from any department; the requirements are listed, by departments, below. A general minor in business administration is not available.)
- b. The minor in another school of the University
The student whose major is in The School of Business Administration may complete a minor in any one department of any school of the University, provided that such a minor consist of a minimum of 18 semester hours, at least 6 semester hours of which must be in courses from the upper division (numbered above 2999).

DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

DEPARTMENT OF ACCOUNTANCY: The objective of the Department of Accountancy is to provide the graduate with a substantial background in accountancy which will enable him to adjust himself to any accounting situation and to advance rapidly in government, industry, or public accounting practice. The curriculum is designed to enable the student to achieve mastery of the generally accepted accounting principles and procedures as they are applied in all fields of accounting and to study modern accounting trends and techniques and the current controversial topics in his profession.

An accounting major or minor must have a grade of C or better in every course attempted in The Department of Accountancy.

Specialization is provided in (1) governmental accounting, (2) industrial accounting, and (3) public accounting.

The Major: Accounting 2720 (Laboratory) and a minimum of 27 semester hours in upper-division accounting courses, as follows:

3110 and 3120, Intermediate Accounting I and II

3310 and 3320, Cost Accounting I and II

4210, Advanced Accounting I

4510, Federal Income Tax I

3240, Internal Auditing (if the specialization is industrial accounting)

or

4240, Auditing I (if specialization is public accounting)

Two additional upper-division accounting courses, approved by the department chairman

The Three-Year Pre-Law Major (see page 134)

Accounting 3110 and 3120, Intermediate Accounting I and II
Accounting 3310, Cost Accounting I

Three additional accounting courses selected from the following:

Accounting 3320, 4210, 4220, 4240, 4250, 4450, 4460, 4510,
4520, 4540

The Minor: A minimum of 19 semester hours in accounting courses, as follows:

2010 and 2020, Fundamentals of Accounting

2720, Accounting Laboratory

3110, Intermediate Accounting I

3310, Cost Accounting I

Two additional upper-division accounting courses, approved by the department chairman

DEPARTMENT OF ECONOMICS AND FINANCE

The Major in Economics (THE SCHOOL OF BUSINESS ADMINISTRATION):

a minimum of 21 semester hours in upper-division courses, as follows:

3110, Economics of Business Enterprise

3210, Labor Economics

4310, Microeconomic Theory

4320, Macroeconomic Theory

Three additional upper-division courses selected with the approval of the department chairman.

The Major in Economics (THE SCHOOL OF ARTS AND SCIENCES): the student will be required to meet the requirements for the Bachelor of Arts degree plus the specific major requirements:

2110, 2120, Principles of Economics I and II

3610, Money and Banking I

4310, Microeconomic Theory

4320, Macroeconomic Theory

Management 3711 or Mathematics 2611 or 3651

Four additional upper-division courses, for a total of 30 semester hours, selected with the approval of the department chairman.

The Three-Year Pre-Law Major (see page 138)

Six economics courses selected from the following:

Economics 3110, 3210, 3330, 3710, 4130, 4310, 4320, 4350, 4610,
4720

The Major in Finance: a minimum of 21 semester hours in upper-division economics courses, as follows:

4120, Business Cycles and Forecasting

4320, Macroeconomic Theory

4610, Central Banking and Monetary Theory

4710, Financial Markets

Three additional upper-division courses selected with the approval of the department chairman.

The Minor:

- a. For students whose major is within The School of Business Administration: three approved upper-division courses in economics or finance, exclusive of the basic upper-division requirements for the Bachelor of Business Administration degree.

- b. For students whose major is in another school of the University:
- ECONOMICS MINOR:** Economics 2110 and 2120, Principles of Economics I and II
 Economics 3610, Money and Banking I
 Economics 4310, Microeconomic Theory or 4320, Microeconomic Theory
 Two additional approved upper-division courses
- FINANCE MINOR:** Accounting 2010, 2020
 Economics 2110, 2120, 3610
 Management 3410
 Two additional approved upper-division courses

DEPARTMENT OF MANAGEMENT

The Major: a minimum of 21 semester hours in upper-division courses, as follows:

Economics 3210, Labor Economics
 Management 4610, Corporation Finance
 Management 4410, Management of Business Enterprise

A minimum of 12 semester hours in courses related to one of the following areas, selected with the approval of the major professor:

Business research
 Financial management
 General business management
 Production management
 Insurance
 Personnel administration and industrial relations
 Real estate
 Transportation

The Three-Year Pre-Law Major (see page 138)

Six management courses selected from the following:

Management 3220, 3310, 3510, 3810, 4220, 4310, 4320, 4410, 4610, 5010, 5020

The Minor:

- a. For the student whose major is within The School of Business Administration: three approved upper-division courses in management, exclusive of the basic upper-division requirements for the Bachelor of Business Administration degree.
- b. For the student whose major is in another school of the University:
 Accounting 2010 and 2020, Fundamentals of Accounting
 Economics 2110 and 2120, Principles of Economics I and II
 Economics 3610, Money and Banking I
 Management 3410, Business Organization
 Two additional approved upper-division courses in Management.

DEPARTMENT OF MARKETING: The objective of the Department of Marketing is to provide the student with a broad concept of the marketing process and to develop an understanding of all the factors involved in the collection and distribution of goods and services. A marketing major or minor must have a grade of C or better in every Marketing course attempted.

By careful selection of electives (before the middle of his sophomore year), the marketing major may become certified to teach distributive education in high schools, technical institutes, and junior colleges. See page 108 for details of certification requirements, page 160 for additional information on distributive education.

The Major: a minimum of 24 semester hours in upper-division marketing courses, as follows:

- 3011, Marketing Institutions
- 3012, Marketing Promotions
- 3080, Marketing Analysis
- 4010, Marketing Administration
- 4080, Marketing Research

A minimum of 9 semester hours (12 semester hours for general marketing and sales) in upper-division marketing courses applicable to one of the following specific majors. Courses marked with an asterisk are required; others may be chosen from those listed with the major or from those listed as General Electives at the end of this section:

ADVERTISING: designed to provide an understanding of mass communication media, advertising agencies, retail advertising departments, advertising management, and other advertising activities, (A minimum of 9 semester hours including required courses).

- *3110 Advertising Fundamentals
- *3120 Advertising Problems
- 4110 Advertising Media and Campaigns
- 4120 Advertising Management

GENERAL MARKETING: allows a concentration in marketing without specialization: the required courses include a key course from each of the specific majors. (A minimum of 12 semester hours.)

- *3110 Advertising Fundamentals
- *3210 Logistics Administration
- *3310 Retail Store Management
- *4410 Sales Management

MARKETING LOGISTICS: designed to provide an understanding of the distribution system as it pertains to the flow of goods within and without the environment. (A minimum of 9 semester hours including required courses.)

- *3210 Logistics Administration
- *3220 Industrial Marketing
- 4210 Quantitative Analysis of Logistics Systems
- 4220 Purchasing

RETAILING: this major gives the student a background in the operation and management of retail establishments. (A minimum of 9 semester hours including required courses.)

*3310 Retail Store Management

*3320 Retail Merchandising

4310 Retail Store Promotions

4320 Credit and Collections

SALES: this major gives the student a thorough grounding in the field of sales from basic salesmanship through sales management; the subject matter is approached from both theoretical and practical aspects. (A minimum of 12 semester hours.)

*3410 Sales Fundamentals

*3420 Sales Promotion

*4410 Sales Management

4420 Sales Training

GENERAL ELECTIVES: one of the following four courses may be used for a non-required course in a specific major.

4510 International Marketing

4520 Product Planning

4491 Work Experience in Marketing I

4492 Work Experience in Marketing II

The Minor:

- a. For the student whose major is within The School of Business Administration: three approved upper-division courses in marketing, exclusive of the basic upper-division requirements for the Bachelor of Business Administration degree.
- b. For the student whose major is in another school of the University: Accounting 2010 or Economics 2110; *and* Marketing 3010 and the 15-semester-hour marketing core; *or* Marketing 3010, 6 semester hours from the marketing core, and 9 semester hours from a specific major.

DEPARTMENT OF SECRETARIAL SCIENCE AND OFFICE MANAGEMENT:

The student planning to major in either secretarial science or office management will take in his freshman year Secretarial Science 1210 and 1220, Elementary Typewriting and Intermediate Typewriting. If he has had previous training in typewriting, he will omit 1210 and take 1220 and a higher-numbered typewriting course, or one semester of an elective.

The student planning to major in secretarial science will take, in his sophomore year, Secretarial Science 2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand. If he has had previous training in shorthand, he will omit 2120 and take 2130 and a higher-numbered shorthand course, or one semester of an elective. Students planning to major in office management may omit shorthand from their programs.

No more than three courses (9 semester hours) in typewriting may be applied toward satisfaction of the degree requirements by a student with high school credit in typewriting.

A student must earn a grade of C or better in a typewriting or shorthand course before he can register for the next course in the subject.

The Major in Secretarial Science: a minimum of 24 semester hours of upper-division secretarial science courses, as follows:

- 3140, Advanced Shorthand I
- 3250, Advanced Typewriting
- 3520, Business Letter Writing
- 4270, Secretarial Typing and Office Machines
- 4320, Applied Secretarial Practice
- 4330, Records Management and Control

Two of the following courses, selected in conference with the adviser:

- 4160, Secretarial Dictation
- 4400, Punched Card Methods
- 4401, Punched Card Applications
- 4410, Office Management I
- 4530, Executive Communication
- 5420, Problems in Office Management

The Major in Office Management: a minimum of 24 semester hours of upper-division courses as follows:

- 3520, Business Letter Writing
- 4330, Records Management and Control
- 4400, Punched Card Methods
- 4401, Punched Card Applications
- 4410, Office Management I
- Accounting 3210, Financial Statement Analysis

Two of the following courses, selected in conference with the adviser:

- 4530, Executive Communication
- 5420, Problems in Office Management
- Economics 3110, Economics of Business Enterprise
- Management 4210, Personnel Administration
- Management 4610, Corporation Finance
- Management 4410, Management of Business Enterprise
- Marketing 4330, Credit and Collections

The Minor in Secretarial Science:

- a. For the student whose major is within The School of Business Administration: one course (above the beginning courses) in shorthand; one course (above the beginning courses in typewriting); and two additional upper-division courses in secretarial science approved by the department chairman.
- b. For the student whose major is in another school of the University:
 - 1210 and 1220, Elementary Typewriting and Intermediate Typewriting.
 - 2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand
 - 3140, Advanced Shorthand
 Two or three additional approved upper-division courses in secretarial science.

(If the student can demonstrate proficiency in either typewriting or shorthand, he may omit either Secretarial Science 1210 or 2120, thus reducing the hours required for the minor from 21 to 18; a minimum of 18 semester hours is required.)

The Minor in Office Management:

- a. For the student whose major is within The School of Business Administration:

3520, Business Letter Writing

4330, Records Management and Control

4400, Punched Card Methods

4410, Office Management I

- b. For the student whose major is in another school of the University:

Accounting 2010 and 2020, Fundamentals of Accounting

Economics 2110 and 2120, Principles of Economics I and II

4410, Office Management I

Two additional upper-division courses in secretarial science approved by the department chairman.

THE SCHOOL OF EDUCATION

SAM HOWARD JOHNSON, B.S., M.Ed., Ed.D., *Dean*
Room 406, Education Building

THE School of Education has as its objectives (1) to be an articulated part of the general and cultural program of the University; (2) to provide a program of teacher education which promotes the growth and development necessary for successful teaching; (3) to recruit desirable candidates for the teaching profession; (4) to assist in placing teachers; (5) to provide professional service to public schools in the service area; and (6) to develop and carry out a continuing program of educational research. Several curricula leading to the degree of Bachelor of Science in Education are available. Candidates for this degree take required and elective courses within The School of Education and, in preparation for teaching in certain areas, take courses in The School of Arts and Sciences and in The School of Business Administration. Students who wish to matriculate in the teacher education program must meet the special criteria of that program in addition to the general University admission requirements. Applications for admission to this program cannot be considered until the student has completed a minimum of one and one-half years of college work to the satisfaction of the faculty of The School of Education. For details see page 152.

ACCREDITATION

The School of Education holds membership in the American Association of Colleges for Teacher Education. Its undergraduate programs for the preparation of elementary and secondary teachers are fully accredited by the National Council for Accreditation of Teacher Education.

ORGANIZATION OF THE SCHOOL

The School of Education comprises seven departments: Curriculum and Instruction; Educational Administration and Supervision; Health, Physical Education, and Recreation; Home Economics; Industrial Arts Education; Music Education; and the Division of Vocational and Technical Education (distributive education and office education). These departments offer a variety of

majors and minors, the detailed requirements for which are listed in the section beginning on page 156. The University Campus School, a public school comprising grades 1 through 6, is operated under the supervision of The School of Education.

The School of Education is organized into a lower division and an upper division:

THE LOWER DIVISION comprises the freshman and sophomore years, the first four semesters of university work; courses offered in the lower division are numbered from 1000 through 2999. In order to be admitted to the upper division, the student must have completed the work of the lower division with an average grade of C (2.0). In addition, he must have submitted to his adviser for approval a complete program of study for work in the upper division. Students who complete the work of the lower division with less than a C average will be given one additional semester in which to reach this standard. If, at the end of this additional semester, the student's average is below C, he will be advised to withdraw from the University.

THE UPPER DIVISION comprises the junior and senior years, the last four semesters of undergraduate work; courses offered in the upper division are numbered from 3000 through 4999. Students who have completed the required number of hours and the required residence to be classified as juniors, but who have not completed their basic requirements in the lower division, must schedule these uncompleted requirements during the first semester in which such courses are available. Forty-five semester hours are required in the upper division. In the upper and lower-division requirements no grade of less than C will be accepted in areas of endorsement (except in elementary certification) and in professional courses.

BUREAU OF EDUCATIONAL RESEARCH AND SERVICES

The Bureau of Educational Research and Services coordinates educational studies, surveys, evaluations, consultant activities, and information for The School of Education. Emphasis is placed on team projects related to the needs of West Tennessee and the Mid-South area and conducted through the cooperative efforts of the faculty and students of The School of Education and educators in local school systems. The primary objective of the Bureau is service, with research playing a fundamental role in the extension of this service.

School systems, students, or any other interested persons should confer with Dr. James W. Colmey, director of the Bureau (Room

402, Education Building) for information about opportunities for educational research and services.

THE UNIVERSITY CAMPUS SCHOOL

The University Campus School, located east of The School of Education Building, is a public school comprising grades 1 through 6, operated by the University as a part of the public school system of the City of Memphis; it offers a broad program of training for approximately 700 students. This school serves the teacher education program as a laboratory in which prospective teachers observe and study, and where a limited number practice the art of teaching. Varied opportunities are offered University students to study children, to study a school program, and to participate in teaching activities. Through The Campus School arrangements have been made for the use of other city schools for purposes of teacher education. Student experiences with the teachers of The Campus School, and with the many other fine teachers in the area, are considered an integral part of preparation for a teaching career.

The University also conducts a Nursery and Kindergarten School, administered by the principal of The Campus School in cooperation with the Department of Curriculum and Instruction and the Department of Home Economics. The school is a non-profit institution and tuition charges are determined by the cost of operation.

ADMISSION

The requirements for admission to The School of Education are those set up for the University as a whole; see page 66.

ADMISSION TO TEACHER EDUCATION PROGRAM

Students who enter Memphis State University for the first time after September 1, 1962 and who wish to prepare themselves for careers as teachers must make formal application for admission to the teacher education program during the second semester of the sophomore year. Students who transfer to Memphis State University after the completion of their sophomore year, or with more than 45 semester hours of credit, must make application during their first semester of residence at Memphis State.

The following factors will be considered by the screening

committee in determining a student's eligibility for admission to the teacher education program: (1) academic aptitude, (2) academic achievement, (3) proficiency in English and mathematics, (4) health, (5) social adjustment, (6) communication skills, (7) interest in teaching, and (8) the desire to work effectively with students.

Once admitted to the teacher education program the student must maintain the standards required for admission. If the student falls below any of these standards, his name will be removed from the file of students matriculated in teacher education and he will be advised of this action. He may then either try to bring his record up to a level suitable for re-admission, or drop out of the teacher education program.

In order to be graduated and certified to teach, a student must (1) meet all standards established for admission to the teacher education program, (2) make formal application for and be admitted to that program, (3) complete all requirements for certification (outlined on page 108); and (4) complete all degree requirements in the school of the University in which he is enrolled.

All graduates of The School of Education must be qualified for a teaching certificate.

No student will be enrolled for a course in student teaching until he has been admitted to the teacher education program and has met all the prerequisites for student teaching.

Application forms for admission to the teacher education program may be secured from the office of the dean of The School of Education, Room 406, Education Building. For a detailed explanation of all requirements, the student should consult with his adviser.

DEGREE REQUIREMENTS

To qualify for the Bachelor of Science in Education degree the student must complete 132 semester hours with a grade point average of 2.0 (on a scale in which A has the quality point value of 4; B, 3; C, 2; and D, 1). Of the 132 semester hours required for graduation, at least 45 must be in courses from the upper division (those numbered above 2999).

At least 60 semester hours of the credit applied on the degree must be of liberal content. Courses in the following fields offered

in The School of Arts and Sciences will meet this requirement: anthropology, art (non-applied), biology, chemistry, English, geography, geology, history, journalism (non-applied), languages, mathematics, music (non-applied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The School of Education will meet this requirement: Education 2111, 4011, 4012, and 4021; Health 1102; Home Economics 1101, 1104, 2202, and 4101.

General requirements for the degree include the successful completion of (I) the general education program, (II) the professional education program, (III) physical education activity courses, (IV) a major in The School of Education and (V) endorsement in two or more teaching areas. Elementary teachers meet only the endorsement required for elementary grades. These requirements are outlined in detail in the sections which follow.

I. THE GENERAL EDUCATION PROGRAM (45 semester hours)

(Courses taken to meet the requirements of this section may, if applicable, be used to meet the requirements of Section V, below.)

English 1101, 1102, 2101, and 2102

Health 1102

History 2601, 2602

Mathematics 1181 for elementary certificate; for secondary certificate Mathematics 1111 or any higher-numbered mathematics course excluding Mathematics 1211 (Basic Mathematics)

Speech 2911 for elementary certificate; 1211 or 1311 or 1411 for secondary certificate.

Science: 9 semester hours (including one two-semester laboratory sequence course) in two of the following sciences: biology, chemistry, Geography 1101, 4111, 4121, 4122, 4131; geology, physics. (P. E. majors may take Biology 3630 for second area).

One course (3 semester hours) in one of the following social sciences: anthropology, economics, geography (other than the earth science courses outlined above), political science, sociology.*

One course (3 semester hours each) in the humanities to be chosen from one of the following departments: Art, Classical Languages, Modern Languages, and Philosophy.

One of the following courses: Home Economics 1101, Psychology 1101, Sociology 1111.

II. THE PROFESSIONAL EDUCATION PROGRAM (27 semester hours)

Education 2011, 2111, 3121, and the courses in one of the following groups:

For the elementary certificate: Education 3241, 3251, 3261, 3271, and 4821.

For the secondary certificate: Education 4441, 4841, an appropriate secondary schools methods course, and 3 semester hours of elective applicable for secondary school teachers.

*May be used to satisfy only one area.

III. PHYSICAL EDUCATION ACTIVITY COURSES

Two to four semesters of physical education activity courses; for details see page 105.

IV. A MAJOR IN THE SCHOOL OF EDUCATION

The student will choose one of the following majors offered in The School of Education. The specific courses required for the satisfaction of these majors are listed in the following pages.

Elementary education (offered in the Department of Curriculum and Instruction)

Health and Physical Education

Home economics

Industrial Arts Education

Music education

Recreation

Secondary education (offered in the Department of Curriculum and Instruction)

Vocational and Technical Education

Distributive Education (marketing)

Office Education (business education and office management)

V. CERTIFICATION IN TWO OR MORE TEACHING AREAS

The student must complete the requirements of individual departments for certification in the State of Tennessee in *two* or more teaching areas (combined minimum of 36 semester hours) with a 2.250 average in each, unless special exception is made by the dean of The School of Education. Elementary school teachers are required to meet only the endorsement for elementary grades. Specific course requirements for all of the endorsements offered in the University are listed in the section beginning on page 108.

DIRECTED STUDENT TEACHING

Directed student teaching, offered in the University Campus School and in cooperating schools in the Memphis and Shelby County school systems, provides opportunities for observation of good teaching practices and for practical teaching experience under the direction of supervising teachers.

Students preparing to teach in the elementary schools are required to enroll for nine semester hours of student teaching to be done on an all-day basis for one half a semester. Students preparing to teach in the secondary schools are required to enroll for nine semester hours of student teaching to be done three hours daily for an entire semester, or all day for one half a semester. NOTE: *Students who enroll for student teaching on an all-day basis may not register for any other course which is scheduled to meet during the half-semester in which the student teaching is done.*

*May be used to satisfy only one area.

All teacher-education students will observe a professional semester when they are enrolled in student teaching. During this semester, only professional courses will be taken. Elementary teachers will complete Education 3241, 3251, and 3271 prior to the professional semester and enroll in Education 3261, 4242 and 4821 within the professional semester. Directed student teaching will be an all-day experience. Secondary teachers will complete the appropriate secondary methods course (Education 3321-3384) prior to the professional semester and Education 4441 and 4841 within the professional semester. Exceptions may be made to permit secondary teachers to enroll for the appropriate secondary methods course during the professional semester. Advisers may assign appropriate courses where indicated to complete the professional semester. Directed student teaching for secondary teachers will be done three hours daily for an entire semester, or on an all-day basis for one half of a semester.

Exception to the requirements for the professional semester may be made when approved by the dean of The School of Education.

Requirements for enrolling in the student teaching program are as follows:

1. The filing of an application with the coordinator of student teaching during the semester prior to the one in which the student teaching is to be done. Applications for student teaching to be done in the fall semester must be filed by April 1; for the spring semester by October 15.
2. Classification as a senior or graduate student.
3. Completion of at least one semester of residence at Memphis State University.
4. An over-all average of at least 2.000; an average in education courses of at least 2.000; an average in the endorsement area of at least 2.250.
5. Completion of Education 2011, 2111, and 3121.
6. Completion of Education 3241, 3251, and 3271 (for those preparing to teach in elementary schools); Education 3211 and 3411 (for kindergarten); or the appropriate secondary methods course (for those preparing to teach in secondary schools).
7. Completion of either the elementary or secondary endorsement.
8. Approval by the applicant's adviser and by the coordinator of student teaching.

DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

DEPARTMENT OF CURRICULUM AND INSTRUCTION. The Department of Curriculum and Instruction offers majors in two areas (elementary education and secondary education) and minors in four

areas (elementary education, secondary education, library service, and special education).

The Majors:

ELEMENTARY EDUCATION: 33 semester hours, as follows: Education 2011, 2111, 3121, 3241, 3251, 3261, 3271, 4242, 4821 (9 semester hours); and completion of the requirements of general education and elementary grades endorsement area.

SECONDARY EDUCATION: 27 semester hours, as follows:

Education 2011, 2111, 3121, 4441, 4841, one appropriate secondary school methods course, one elective appropriate for secondary school teachers, and completion of the requirements of general education and two endorsement areas.

The Minors: A co-requisite for the minors listed below is the completion of the requirements for certification to teach in the State of Tennessee; these requirements are outlined in the section beginning on page 108.

ELEMENTARY EDUCATION: Same as elementary education major.

SECONDARY EDUCATION: Same as secondary education major except only one endorsement required.

LIBRARY SERVICE: 18 semester hours in library service courses in conference with the adviser, plus certification in any area of either elementary or secondary education.

SPECIAL EDUCATION: 21 semester hours in Special Education courses chosen in conference with the adviser, plus certification in elementary education.

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION. The Department of Educational Administration and Supervision does not offer courses at the undergraduate level leading to a degree program. Students who plan graduate study in this area should consult the Bulletin of The Graduate School.

DEPARTMENT OF DISTRIBUTIVE EDUCATION. (See page 160, Division of Vocational and Technical Education)

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION.

Majors and/or minors are offered in (1) health, (2) health and physical education, and (3) recreation. The recreation major will not satisfy teacher certification requirements nor any endorsement area in The School of Education.

The Major in Health and Physical Education

FOR MEN: 42 semester hours, as follows:

Health 1102, 2102 or 3502, 3102, 3202 (12 sem. hrs.)

Physical Education 1101, 1121, 1131 or 1141, 1171, 1251, 1311, 1321, 1701, 2503, 3203, 3303, 3403, 3503, 3603, 4204, 4503 (26 semester hours)

Two of the following courses: Physical Education 2103, 2203, 2303, 2403 (4 semester hours)

Biology 1631, 1632, 3630

FOR WOMEN: 42 semester hours, as follows:

Health 1102, 2102, 3102, 3202 (12 sem. hrs.)

Physical Education 1101, 1121, 1131 or 1141, 1171, 1221, 1251, 1271, 1311, 1321, 2503, 3103, 3203, 3303, 3403, 3503, 3603, 4204, 4503 (30 semester hours)

Biology 1631, 1632, 3630

The Major in Recreation

General Education Program (54 semester hours)

English 1101, 1102, 2101, 2102

Health 1102, 2102

Biology 2002, 3240, and two of following: Biology 3050, 3600, 3940

History 2601, 2602

Psychology 1101, 1102

Sociology 1111, 2410

Anthropology 1200

Mathematics 1111, or 1131, or 1211

Related Areas of Study (24 semester hours)

Art 3411, 3531

Music 2231

Speech 1311

Drama (3 semester hours elective)

Education 2011, 2111, 3121

Professional Areas of Study (35 semester hours)

Physical Education 1101, 1141, 1221 (women), 1251, 1271 (women), 1311, 1331, 1341 (men), 1351, 1701 (men), 3203, 3503, 3603

Recreation 3705, 3905, 4105, 4405, 4505, 4605

The Minor in Health: 27 semester hours, as follows:

Health 1102, 1202, 2102, 3102, 3202, 4802

Home Economics 2202

Biology 1631, 1632

The Minor in Health and Physical Education

FOR MEN: 35 semester hours, as follows:

Biology 1631 and 1632 (6 semester hours)

Health 1102, 2102 or 3502, 3102, 3202 (12 semester hours)

Physical Education 1101, 1251, 1311, 1321 (4 semester hours)

Physical Education 2103 or 2203 or 2303 or 2403, 3203, 3303, 3503, 3603, 4503 (13 semester hours)

FOR WOMEN: 31 semester hours, as follows:

Biology 1631, 1632 (6 semester hours)

Health 1102, 2102, 3102, 3202 (12 semester hours)

Physical Education 1101, 1221, 1251, 1311, 1321 (5 semester hours)

Physical Education 3103, 3203, 3303, 3503, 3603, 4503 (14 semester hours)

DEPARTMENT OF HOME ECONOMICS

The Major: 39 semester hours in home economics courses and 13 to 16 semester hours in related courses, as follow:

Home Economics 1101, 1105, 2102, 2103, 2202, 2205, 3302, 3305, 3402, 4101, 4103, 4104, 4203

Biology 1632 or 3730

Sociology 1111

The Minor: 18 semester hours in home economics courses, including Home Economics 1105, 1104 (or 2205), 2102, 2202, 4101, and one additional course from the upper division.

DEPARTMENT OF INDUSTRIAL ARTS EDUCATION

The Major: 42 semester hours in Industrial Arts Education and Industrial Technology courses as follows:

Industrial Arts Education 2911, 4361, 4371, 4375

Industrial Technology 1511, 1611, 1711, 1811

Completion of requirements for endorsement in two of the following areas:

Drafting (IAEd 3551; IT 1511, 1551, and one three-hour elective approved by adviser)

Woodwork (IAEd 3651; IT 1611 and two three-hour IT electives approved by adviser)

Metalwork (IAEd 3751; IT 1711 and two three-hour IT electives approved by adviser)

Electricity (IAEd 3831; IT 1811 and two three hour IT electives approved by adviser)

The Minor: 27 semester hours in Industrial Arts Education and Industrial Technology courses as follows:

Industrial Arts Education 2911, 4371

Industrial Technology 1511, 1611, 1711, 1811

9 semester hours of electives in the selected subject matter area approved by the chairman of the Department of Industrial Arts Education.

DEPARTMENT OF MUSIC EDUCATION

The Major: The major requires the completion of (1) a group of basic music courses and (2) a group of courses in one of two concentration areas:

1. Basic music courses (58 semester hours):

Music 1012, 1013, 1032, 1033, 1041, 2014, 2015, 2034, 2035, 3031, 3033, 3035, 3131, 3132, 3235.

Music ensembles: 8 semester hours

Applied music (either class or individual instruction, or both, in piano, voice, winds, strings, as determined by the student's adviser.) For details of piano requirements see page 272.

1. Concentration areas (Choose one.) See page 112 for further information on endorsements.

- a. School music (9 semester hours)

Music 3236

Music Education 1311, 1711, 1911, 4231

- b. Instrumental music (12 semester hours)

Music 3236

Music Education 4232

Individual instruction in one instrument: 6 semester hours

The Minor: The minor requires the completion of (1) a group of basic music courses and (2) a group of courses in one of two concentration areas:

1. Basic music courses (33 semester hours)

Music 1012, 1013, 1032, 1033, 2014, 2034 (or any combination of basic theory courses totaling 12 semester hours.)

Music 3035, 3131 (or 1041 or 3132) and 3235

Applied music (either class or individual instruction, or both, in piano, voice, winds, strings, as determined by the student's adviser.) For details of the piano requirements see page 272.

2. Concentration areas. (Choose one.)

(The requirements in each of the concentration areas for the minor are the same as for the major, outlined above.)

DIVISION OF VOCATIONAL AND TECHNICAL EDUCATION

The objectives of this division are (1) to train prospective teachers of vocational and technical programs in high schools, technical institutes, junior colleges, and adult-education programs; (2) to provide graduate study and in-service education for vocational and technical teachers, supervisors, and administrators; (3) to conduct and direct research related to vocational and technical education; and (4) to develop instructional materials for use by vocational and technical teachers.

The Division offers majors and minors in distributive education and in vocational office education; other vocational teacher education programs will be added.

The Major in distributive education:

Education 2011, 2111, 3121, and 4841

Distributive Education 4610, 4630, 5640, and three semester hours of electives of distributive education or education 4301 or 4611.

A minimum of 27 semester hours in marketing and business administration (specific courses to be chosen in conference with adviser)

Verified practical experience in a distributive occupation; or Marketing 4991

The Minor in distributive education:

Education 2011, 2111, 3121, and 4841

Distributive Education 4630 and 3 additional semester hours in distributive education

10 semester hours in marketing and business management and Verified practical experience in a distributive occupation; or Marketing 4991

The Major in vocational office education:

Education 2011, 2111, 3121, and 4841

6 semester hours in special methods in business education

Basic course requirements for secondary certificate in business
(listed on page 110)

Endorsement in one or more fields (Specific courses to be
chosen in conference with adviser)

The Minor in vocational office education:

(The minor cannot be described until minimum requirements for
certification are published by the Tennessee State Board for
Vocational and Technical Education. For current information
see the director of the Division of Vocational and Technical
Education.)

THE HERFF SCHOOL OF ENGINEERING

FREDERIC HARTWELL KELLOGG, G.E., M.A., Ph.D., *Dean*
Room 215, Education Building

THE founding of The Herff School of Engineering was made possible by a gift from Mr. and Mrs. Herbert Herff of Memphis. The function of the School is to serve the educational and research needs of the industrial community of the metropolitan area, the state, and the Mid-South region. It accomplishes this function by providing (1) undergraduate education in applied science, engineering, and technology; (2) graduate education in applied science and professional engineering; (3) a program of continuing education for the engineering and technological practitioners of the area; (4) assistance in the solution of industrial problems through utilization of physical facilities and the professional talents of faculty; (5) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes, and short courses; and (6) an increase in the body of knowledge in its special fields of interest by a continuing program of study and research.

DEGREES OFFERED

The Herff School of Engineering comprises three departments: Engineering and Applied Science, Geology, and Industrial Technology.

The engineering program consists of a four-year curriculum leading to the degree of Bachelor of Arts in Applied Science and a fifth-year curriculum leading to the professional degree of Bachelor of Engineering.

The geology program follows the four-year curriculum of the engineering program, substituting geology for engineering science.

The industrial technology program consists of a four-year curriculum leading to the degree of Bachelor of Science in Industrial Technology.

Requirements for these degrees are outlined in the section beginning on page 163.

ADMISSION OF FRESHMEN

All applicants for admission as a freshman in The Herff School of Engineering must meet the general University requirements listed in the section beginning on page 66. In addition, to be admitted to the regular freshman program in the Department of Engineering and Applied Science, the student must present the following high school credits (units) :

<i>Subject</i>	<i>Recommended</i>	<i>Minimum</i>
English	4	4
Mathematics	4*	4*
Science	3**	2**
Social Science	2	2
Foreign Language	3***	—
Additional Subjects	—	4
	<u>16</u>	<u>16</u>

*Must include 2 units of algebra, 1 unit of geometry, and 1 unit of 12th grade mathematics. Student without 12th grade mathematics must enroll in Mathematics 1212. No student with less than three high school units in algebra and geometry should enroll in this program.

**Must include chemistry and either physics or biology. Students without one unit of high school chemistry may be required to enroll in Chemistry 1100.

***Recommended to be in one language.

RESIDENCE REQUIREMENTS

The general University residence requirements for undergraduate degrees are given on page 106. All candidates for the degree of Bachelor of Engineering, including transfer students must complete the professional year in residence. For purposes of this regulation, the professional year is defined as that time necessary to complete those courses required for the Bachelor of Engineering degree beyond those required for the undergraduate degree Bachelor of Arts in Applied Science.

TRANSFER OF CREDIT

All students requesting transfer of credit for work done elsewhere toward a degree in The Herff School of Engineering must comply with the general University regulations given in the section beginning on page 67.

REQUIREMENTS FOR THE DEGREES

BACHELOR OF ARTS IN APPLIED SCIENCE

The degree of Bachelor of Arts in Applied Science is a pre-professional degree. Successful completion of all requirements for this degree and the additional work described below are

required for candidacy for the second, or professional degree.

To qualify for the degree of Bachelor of Arts in Applied Science the student must complete all of the required courses listed below with a minimum quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; and D, 1). In addition, all engineering courses must be completed with a minimum quality point average of 2.0. Detailed requirements are as follows:

English 1101, 1102, 2101, 2102.

History 2601, 2602.

Non-technical electives: 24 semester hours (see details in next section).

Mathematics 1321, 2321, 2322, 3391, 3711.

Chemistry 1111, 1112.

Physics 2511, 2512.

Air Force ROTC (for men): for details see page 105.

Physical Education: 2 to 4 semester hours; for details see page 105.

Engineering and Applied Science 2011, 2912, 3001, 3002, 3011, 4011, 4021, 4031, 4061, and courses in one of the following groups:

(a) Civil engineering: EAS 4111, 4112, approved geology elective

(b) Electrical engineering: EAS 4001, 4211, 4212

(c) Mechanical engineering: EAS 4311, 4312, approved engineering elective

Students preparing course schedules are cautioned to observe the sequence of prerequisites for most courses. Failure to do so may result in unbalanced schedules and usually lengthens the time required for completion of the program.

Suggested schedules are available in the department chairman's office and from the student's adviser. Students who observe the prerequisite sequences and who maintain a reasonable full-time course load should typically expect to complete the degree program in eight semesters provided all admission requirements regarding high school credits have been met.

NON-TECHNICAL ELECTIVES

(for the Bachelor of Arts in Applied Science)

Each student is required to complete 24 semester hours of non-technical courses in addition to the University requirements in English and history. The non-technical electives must include:

(1) six semester hours of sequential courses in the humanities (art, upper-division English, classical languages, history, modern languages, music, philosophy, psychology, or speech and drama);

(2) six semester hours of sequential courses in the social sciences

(anthropology, economics, geography other than physical, history, philosophy, political science, psychology, or sociology);

(3) six to twelve semester hours of more advanced work in either or both of the fields chosen in (1) and (2); and

(4) for those students desiring courses given by The School of Business Administration, not more than six semester hours of sequential courses in accounting, finance, management or marketing.

Electives may be chosen only with the approval of the department chairman or the student's adviser. No courses in fields other than those indicated will be accepted without written approval of the dean.

Study of a foreign language is strongly urged, but not required. Those students electing a foreign language must comply with the general foreign language regulations of The School of Arts and Sciences; see page 118.

BACHELOR OF ENGINEERING

The Bachelor of Engineering degree is a professional degree. The student may major in one of three fields: civil, electrical, or mechanical engineering.

To qualify for the degree of Bachelor of Engineering, the student must:

(a) successfully complete all of the requirements for the degree of Bachelor of Arts in Applied Science at Memphis State University or present equivalent transfer credits in accordance with the Transfer of Credit regulations stated above; and

(b) complete all of the required courses (30 semester hours) for one of the major engineering fields listed below with a minimum quality point average of 2.0 (on a scale in which the grade of A has a quality point value of 4; B, 3; C, 2; D, 1.

The major in Civil Engineering: Engineering and Applied Science 5101, 5102, 5111, 5112, 5121, 5122, 5131, approved engineering electives.

The major in Electrical Engineering: Engineering and Applied Science 5201, 5202, 5211, 5212, 5221, 5222, 5231, approved engineering electives.

The major in Mechanical Engineering: Engineering and Applied Science 5301, 5302, 5311, 5312, 5321, 5322, 5331, approved engineering electives.

The School of Engineering reserves the right to change the stated degree requirements and the semester-hour credit for individual courses at any time.

BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY

To qualify for the degree of Bachelor of Science in Industrial Technology the student must complete a minimum of 132 semester hours with a quality point average of 2.0 (on a scale in which an A has the quality point value of 4; B, 3; C, 2; D, 1). Of the 132 semester hours required for graduation, at least 45 semester hours must be in courses from the upper division (those numbered above 2999). To be applicable toward a major or a minor all courses taken in the Department of Industrial Technology must be completed with a grade of C or better.

General requirements for the degree include the successful completion of (I) basic University requirements, (II) basic courses in industrial technology, (III) a major in industrial technology, (IV) a minor in another department of the University, and (V) approved elective courses. These requirements are outlined in detail in the sections which follow:

I. BASIC UNIVERSITY REQUIREMENTS

All of these requirements must be completed before the student will be permitted to enroll in any senior courses (those numbered above 3999).

English 1101, 1102, 2101, 2102

History 2601, 2602

Physical Education

Air Force ROTC (for men only)

II. BASIC DEPARTMENTAL COURSES

Industrial Technology 1411, 1511, 1611, 1711, 1811, 2411, and 3411.

III. THE MAJOR

Each candidate must complete a major in one of the following areas, detailed requirements for which will be found below.

Architectural technology

Construction technology

Drafting and design

Industrial arts education

Manufacturing technology

Wood technology

IV. THE MINOR IN ANOTHER DEPARTMENT OF THE UNIVERSITY

Each candidate must complete a minor in another department of the University.

V. ELECTIVES

The candidate will elect courses from any department in any school of the University to bring the total to 132 semester hours. The outlines of the detailed requirements for the five majors contain recommendations as to the specific areas in which these electives should be concentrated; in every case they are subject to the approval of the student's adviser.

REQUIREMENTS FOR MAJORS AND MINORS IN INDUSTRIAL TECHNOLOGY

THE MAJORS

ARCHITECTURAL TECHNOLOGY: This major is designed for students wishing to specialize in technology as it relates to architecture. Emphasis is placed on the technological and applied approach, with lesser emphasis on design and theory. Specific requirements for this major are:

Industrial Technology: 36 semester hours as follows: 1451, 1551, 2431, 2551, 2561, 3401, 3471, 3491, 3521, 3531, and 4944.

Art or Mathematics: Completion of a minor in one of these departments.

Mathematics (if not selected as a minor): 1212, 1321, 8 semester hours.

Art (if not selected as a minor): 9 semester hours as prescribed by adviser.

Business Speech: 3 semester hours.

Secretarial Science: typewriting, 3 semester hours.

Economics: 6 semester hours.

Chemistry or physics: 8 semester hours.

Marketing: 3 semester hours.

CONSTRUCTION TECHNOLOGY: This major is designed for students wishing to specialize in construction, with emphasis on surveying and related fields. Specific requirements for this major are:

Industrial Technology, 39 semester hours as follows: 1451, 1551, 2431, 2451 or 3451, 3386, 3401, 3431, 3451, 3471, 3491, 3511, 3531, 3631, 3731

Surveying minor

Mathematics: 1212, 1321, 8 semester hours.

Business speech: 3 semester hours.

Secretarial Science: typewriting and business report writing, 6 semester hours.

Economics: 6 semester hours.

Chemistry or physics: 8 semester hours.

Management: business law, 6 semester hours, real estate and real estate law, 6 semester hours.

DRAFTING AND DESIGN: This major is designed for students interested in professional training in drafting and industrial design; a close correlation is maintained with programs in local industry in order that emphasis may be placed on current design problems, methods, and practices in industry. Specific requirements for the major are:

Industrial Technology: 27 semester hours as follows: 1521 or 1551, 2431, 2511, 2531, 2551, 3521, 3571 or 3591, 4471, 4491.

Art: completion of the requirements for a minor in the Department of Art, including Art 1201, 1204, 1211, 3223 and 12 additional semester hours in art courses from the upper division.

Chemistry or physics: 6-10 semester hours.

Economics or Sociology: 6 semester hours.

Marketing: 6 semester hours.

Mathematics: 6-10 semester hours.

Psychology: 9 semester hours.

Speech: 3 semester hours.

(The student working toward a major in drafting and design should concentrate as many of his elective hours as possible in courses in marketing.)

ELECTRONICS TECHNOLOGY: This major is designed for students interested in the area of engineering technology as it relates to electronics. It provides both theoretical and practical techniques as related to computers, quality control, radar, microwaves, instrumentation, technical writing, and other activities associated with electronics. Specific requirements for this major are:

Industrial Technology: 27 semester hours as follows: 2811, 2821, 3386, 3811, 3821, 4471, 4811, 4831, 4832.

Mathematics minor

Marketing or management, 6 semester hours

Economics, 6 semester hours

Speech, 3 semester hours

Physics 1111 and 1112, 8 semester hours

Psychology, 9 semester hours

MANUFACTURING TECHNOLOGY: This major is designed for students wishing to participate in industry as technologists; emphasis is placed on training for manufacturing and production, with additional emphasis on the techniques and procedures of industrial engineering. Specific requirements for this major are:

Industrial Technology: 30 semester hours, as follows: 3386, 3421, 3431, 3631, 3731, 4381, 4471, 4472, 4481, 4491.

Management or marketing: completion of the requirements for a minor in one of these departments.

Management or marketing: 6 semester hours in the department not selected as the minor.

Chemistry or physics: 8-10 semester hours

Economics or sociology: 6 semester hours

Mathematics: 6-10 semester hours

Psychology: 9 semester hours

Speech: 3 semester hours

WOOD TECHNOLOGY: This major is designed for students interested in the lumber industry, especially the processing and use of lumber and wood products; close contact is maintained with local industry through visits, films, and guest lectures. Specific requirements for this major are:

Industrial Technology: 30 semester hours as follows: 2551, 2611, 2721, 3421, 3611, 3621, 3631, 4471, 4472, 4491.

Biology or chemistry: completion of the requirements for a minor in either biology or chemistry.

Economics or sociology: 6 semester hours

Mathematics: 6-10 semester hours

Psychology: 9 semester hours

(The student working toward a major in wood technology should concentrate as many of his elective hours as possible in management or marketing courses.)

THE MINORS:

INDUSTRIAL TECHNOLOGY: Industrial Technology 1411, 1511, and 15 additional semester hours in industrial technology courses, 9 semes-

ter hours of which must be from the upper division. To be counted toward a minor, all industrial technology courses must be completed with a grade of C or better.

SAFETY:

Industrial Technology 3385, 3386

Health 2102

Psychology 2102

Management 3810

3 semester hours in Industrial Technology selected from the following: 4951, 4952, 4953, 4954 or 2 semester hours in Health 3402 and 1 or more semester hours of Industrial Technology in the series 4951-54

SURVEYING:

Geography 3501, 3511

Industrial Technology 1411, 1451, 1511, 2451, 3451

Mathematics 1212, 1321

THE SCHOOL OF LAW

ROBERT DOYLE COX, LL.B., LL.M., *Dean*

Room 209, Law School Building

THE School of Law offers a program of instruction leading to the degree of Bachelor of Laws. A student may enroll in a regular program, attending classes during the day, or in an extended program, attending classes in the evening. A student in the regular program may graduate in three academic years. A student in the extended program may graduate in four academic years plus work in summer sessions. A student regularly employed more than 20 hours per week may not pursue the regular program.

To be eligible for admission a student must have received a bachelor's degree in an appropriate discipline from an accredited college or university and must have made a satisfactory score on the Law School Admission Test administered by the Educational Testing Service, Princeton, New Jersey. Admission to The School of Law is on a selective basis.

Admission to advanced standing may be given to a student who qualifies for admission, and who is eligible for re-enrollment in the law school in which his previous work has been taken, provided that such school is on the approved list of the American Bar Association.

The successful completion of 84 semester hours work, including all required courses, with the prescribed grade average is necessary for graduation. The last 28 semester hours must be taken in this school.

The regulations and policies of the School of Law are set out in greater detail in a separate bulletin. Applications for admission must be made on forms supplied by the School of Law. Inquiries should be addressed to the Dean of the School of Law.

THE DEPARTMENT OF AEROSPACE STUDIES

JOHN C. SMITH, B.S., M.A., *Colonel,*
United States Air Force, Professor of Aerospace Studies,
Room 404, Jones Hall

The Department of Aerospace Studies provides a four-year program of instruction divided into two phases, each of two years duration. The first, termed the General Military Course, offers instruction in the foundation of leadership and Aerospace-age citizenship. The second, termed the Professional Officer Course, builds upon these foundations in developing upperclassmen who are to become Air Force Officers and serve on active duty upon graduation and commissioning.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.

THE GENERAL MILITARY COURSE: The two-year (4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week of Corps Training. Textbooks are furnished by the Air Force without charge. Uniforms for cadets are furnished by the University and are purchased from an allowance provided by the Air Force. The uniforms are the regulation uniforms of the United States Air Force and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course, may apply for admission to the Professional Officer Course (Advanced ROTC).

THE PROFESSIONAL OFFICER COURSE: The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer

Course, a student (undergraduate or graduate), must have successfully completed the General Military Course or its equivalent (See the Two Year Program, below, for information about transfer and graduate students who were unable to complete the General Military Course). In addition, a cadet must have earned credit for at least 55 semester hours of academic work and be enrolled in his junior year with at least two years remaining at the University. Final selection is based on academic standing, leadership potential, percentile score on the Air Force Officer Qualifying Test, and physical qualifications. Senior cadets who are enrolled in the pilot category will engage in a flying program consisting of 36½ hours of flight instruction and 2 semester hours of Elementary Aeronautics (AS 4413). Members of the Professional Officer Course receive a subsistence allowance of \$40.00 per month and are issued uniforms provided by the University.

THE TWO-YEAR PROGRAM: Transfer and graduate students who were unable to complete the General Military Course, but who meet other qualifying criteria, may apply for selection to the Professional Officer Course under the Two-Year Program. Applications must be received not later than 1 March of each year. If selected, the student will attend a 6-week field training encampment during the summer prior to entry into the Professional Officer Course. Graduates of the 6-week field training are enrolled in the Professional Officer Course with the same status as cadets in the four-year program.

BASIS FOR EXEMPTION FROM GENERAL MILITARY COURSE: Normally students in the following categories are exempt from the University ROTC requirement: (1) A student who has completed the General Military Course or its Army or Navy ROTC equivalent at other schools (a transfer student admitted with 55 or more semester hours credit is exempt from the Aerospace Studies requirement); (2) veterans and certain members of the Armed Forces Reserve (members of the Reserve Forces may be exempt if they have served a period of at least four months continuous active duty); (3) a student who is medically or physically handicapped for any reason. The handicap must be verified by the University Health Center; (4) conscientious objectors; (5) Non-citizens. *NOTE:* Exemptions are not granted automatically. At the time of registration, students must present fully documented evidence in support of a request for exemption.

MILITARY DEFERMENTS: All cadets enrolled in the Professional Officer Course are granted a military deferment. Cadets enrolled in the General Military Course whose academic standing, leadership potential, Air Force Officer Qualifying Test scores and medical qualifications meet entrance requirements, are granted a military deferment upon application for the Professional Officer Course. Deferments remain in effect as long as the cadet continues in good standing and is enrolled in the Air Force ROTC Program.

THE EVENING DIVISION

WILLIAM A. BROTHERTON, B.S., M.A., Ed.D., *Director*
Room 221, Administration Building

THE Evening Division offers courses in each of the three undergraduate schools of the University, both on the campus and in the Downtown Division. By providing such college courses in the evening this division aims at fulfilling several educational needs not met by the regular day program. Credit courses offered by television, on WKNO-TV, are under the supervision of The Evening Division.

A major objective is to provide instruction leading to baccalaureate degrees for those who, for a variety of reasons, are not able to attend during the day. In a large measure this is simply an extension of the day program into the evening hours. Regular courses are offered and residence credit is granted.

In addition, The Evening Division provides (a) formal courses for students already holding college degrees but desirous of further training; (b) adult vocational-technical training for those seeking upgrading or change in employment; (c) basic lower-division and pre-professional programs for those preparing to enter professional schools; and (d) an extended general education for those interested in increasing their civic and social competence.

Admission requirements for The Evening Division are the same as those for the regular day program; they are outlined on page 66. For admission of Adult-Special Students, see page 69. Standards of instruction and student performance are maintained at the same level established for the day program.

For students who do not desire to earn credit toward a degree, certain courses are available on a non-credit basis; students enrolled for no credit do the same classwork as the regular students but do not receive a grade or credit at the completion of the course.

Fees in The Evening Division, for both part-time and full-time students, are the same as those in the day program; see page 74 for details. Students may arrange their schedules to take courses in both the day and evening programs without additional cost.

The Bulletin of The Evening Division is issued three times each year prior to the beginning of each term. It contains the schedule of classes, admission procedures, registration announce-

ments and other information for current and prospective evening students. Copies are available in The Evening Division Office.

Inquiries should be addressed to the director of The Evening Division.

THE EXTENSION DIVISION

ELLERY EARL CRADER, B.S., M.A., Ph.D., *Director*
Room 409, The School of Education Building

THE Extension Division of Memphis State University is the official avenue through which services of the University are extended to areas off the campus. Both undergraduate and graduate courses are given at centers within the state where suitable advance arrangements are made. The subject matter of the extension courses is the same as that of courses taught on the campus, and grades received in these courses have the same quality value as do grades received in courses taught at the University. Regularly employed staff members of the University teach extension courses.

Candidates for degrees at Memphis State University may take a limited amount of work through The Extension Division; regulations governing the use of extension credit will be found on page 100.

Where circumstances justify, The Extension Division attempts to provide various types of help to organized groups within the University's service area. This assistance may take the form of such activities as conferences, public addresses, consultative service, and other types of school and community aid. Regularly employed staff members of the University are available for this service.

To the end that The Extension Division may continue to improve and expand its services to the people of the state, correspondence is invited with groups or individuals who are interested in any phase of its activities. Please address all inquiries and suggestions to the director of The Extension Division.

THE SUMMER SESSION

WILLIAM A. BROTHERTON, B.S., M.A., Ed.D., *Director*

Room 221, Administration Building

THE Summer Session consists of two terms of approximately six weeks each and offers accelerated courses in all schools and departments of the University. Students may earn twelve semester hours of graduate credit or fourteen semester hours of undergraduate credit during the summer, with a maximum of six semester hours per term for graduate students and seven semester hours per term for undergraduate students.

Applicants for admission to The Summer Session must meet all admission requirements of the University except that a transfer student who plans to attend Memphis State University *only* in The Summer Session need not submit complete transcripts from schools previously attended; he should request the registrar of the last college attended to mail a statement of good standing to the Registrar; this statement should include the student's classification.

The schedule of fees for The Summer Session is outlined on page 75.

The *Bulletin* of The Summer Session, containing the schedule of classes and information concerning registration procedures, fees, special events, etc., is issued in April of each year. Copies are available in the offices of the Dean of Admissions and the director of The Summer Session.

THE DIVISION OF RESEARCH AND SERVICES

PAUL RUSSELL LOWRY, B.S., M.B.A., *Acting Director*
Scates Hall

IN order to meet its special obligation of providing facilities and personnel for specialized services to the Mid-South region, the University established the Division of Research and Services. The Division makes available to the people of the Mid-South area, within the context of their own communities, occupations, and businesses, the University's resources in the social sciences, economics, business administration, engineering, and public administration, as well as its leadership in the arts.

The Division comprises three departments: The Department of Research Administration, The Department of Conference Services, and The Department of Organized Research.

THE DEPARTMENT OF RESEARCH ADMINISTRATION

The aim of The Department of Research Administration is to support to the fullest extent the research activities of the University. Its principal duties are to administer all categories of research activities, to maintain records on these activities, to provide liaison between the University and outside agencies, and to maintain information on and assist in the determination of the University's needs in matters pertaining to research.

The technical responsibility for all research programs administered through this department is held by the University department or unit doing the research.

THE DEPARTMENT OF CONFERENCE SERVICES

The Department of Conference Services provides non-credit courses in various vocational, technical, and general education fields. It assists state agencies, education institutions, recognized civic organizations, professional groups, and departments of the University in the development and presentation of educational conferences so as to provide a wide variety of educational opportunities

for adults in business, government, and industry in the Mid-South communities.

The staff of the department will assist in planning programs, preparing and distributing printed materials, engaging speakers, handling registration, and will assume responsibility for other matters pertaining to conferences and institutes.

THE DEPARTMENT OF ORGANIZED RESEARCH

The Division of Research and Services is responsible for the organization and administration of the Bureau of Business and Economic Research, the Bureau of Government Research, and the Bureau of Social Research. This organization of bureaus is designed to promote interdisciplinary approaches to research.

The Bureau of Business and Economic Research will carry out research designed to contribute to economic and business knowledge, with primary emphasis on the economy of Memphis and the Mid-South. Specific functions are as follows:

1. To disseminate the information which it has available to the people of this area;
2. To aid businessmen and government officials by providing research on business and government problems;
3. To cooperate with Chamber of Commerce, trade associations, and other groups in matters of business investigation, analysis, and reports;
4. To undertake specific studies under contract with various agencies which will be useful in bringing about improvements in the living standards of the people in the Memphis and Mid-South area;
5. To work closely with the various cities in the Mid-South in helping them project their economic future and to conduct, when requested, special industry feasibility studies.

The Bureau of Government Research carries on a continuous program of research on public administration and policy in Memphis, West Tennessee, and the Mid-South regions. It does its work in cooperation with other units of the University, especially the Department of Political Science. The specific functions are as follows:

1. To render service upon request to municipalities and public agencies;
2. To conduct major administrative studies;

3. To provide students—both full-time and government employees—with training in research methods and public administration.

The Bureau of Social Research provides expert advice and services for agencies in Memphis and the Mid-South by conducting research into community social problems, encouraging interdisciplinary research in the social sciences, providing consultants to various social and welfare agencies, and stimulating interest among the faculty in research.

Part Nine

DESCRIPTION OF COURSES

DESCRIPTION OF COURSES

THE section which follows contains an alphabetical listing of all of the departments in the University and a description of all course offerings. The official course title appears in bold-face type following the course number. The figures in parentheses after the description of a course denote the number of semester hours of credit for that course. If the credit is variable, to be fixed in consultation with the instructor, that fact is indicated by the minimum and maximum credit, as Biology 4000 (2 to 4).

Courses are numbered according to the following system:

- | | | |
|-----------|--|----------------------|
| 1000-1999 | <i>Courses primarily
for freshmen</i> | (formerly 100-199) |
| 2000-2999 | <i>Courses primarily
for sophomores</i> | (formerly 200-299) |
| 3000-3999 | <i>Courses primarily
for juniors</i> | (formerly 300-399) |
| 4000-4999 | <i>Courses primarily for seniors
and for which graduate
credit is not offered</i> | (formerly 400-499) |
| 5000-5999 | <i>Courses offered in The
Graduate School but
open to seniors within
36 semester hours of
graduation</i> | (formerly S500-S599) |
| 6000-6999 | <i>Senior courses open to
graduate students</i> | (formerly G400-G499) |
| 7000-7999 | <i>Courses open only to
graduate students</i> | (formerly 500-599) |

Course numbers have no reference to the semester in which the courses are taught.

The Schedule of Classes is published a few weeks prior to the opening of each semester and The Summer Session. It contains a listing of the specific courses to be offered, with the time, place, and instructor in charge of each section. It also contains special announcements concerning registration procedures. Copies are available in the office of the Dean of Admissions and Records.

IMPORTANT NOTICE

All courses in the curriculum were renumbered in the 1965-66 catalog according to a four-digit system. The three-digit figure in parentheses at the extreme right of the course title indicates the number which that course carried in the 1964-65 catalog.

ACCOUNTANCY

PROFESSOR JAMES THOMAS THOMPSON, *Chairman*
Room 103, The School of Business Administration Building

Requirements for the major and minor in accountancy are listed on page 143.

-
- 2010. Fundamentals of Accounting I. (3). (201)**
 Basic principles, journalizing and posting, the accounting cycle, accruals and deferments, valuation accounts, special journals including the voucher register. Both semesters.
- 2020. Fundamentals of Accounting II. (3). (202)**
 Payrolls, taxation, partnership, corporations, further applications of accounting theory. Both semesters. PREREQUISITE: Accounting 2010.
- 2720. Accounting Laboratory. (1). (272)**
 The working of a practice set involving current accounting practice. Both semesters. PREREQUISITE: Accounting 2010.
- 3110. Intermediate Accounting I. (3). (311)**
 Accounting records, end-of-period procedure, corrections of prior periods, accounting statements, comparative statements, working capital, miscellaneous ratios, profit and loss analysis, corporations. Both semesters. PREREQUISITE: Accounting 2020.
- 3120. Intermediate Accounting II. (3). (312)**
 Cash and receivables, inventories, tangible operating assets, intangibles, investments, liabilities, reserves and valuation accounts, net income determination, statement of source and application of funds. Both semesters. PREREQUISITE: Accounting 3110.
- 3210. Financial Statement Analysis. (3). (321)**
 Nature and scope of financial reports, business ratios, effectiveness of analysis techniques, interpretation of financial reports, study of typical statements. Fall semester. PREREQUISITE: Accounting 2020.
- 3240. Internal Auditing. (3). (324)**
 Review and appraisal of internal accounting procedures of businesses, verification and analysis of financial and operating reports, function and organization of the internal auditing department. Spring semester. PREREQUISITE: Accounting 3120.
- 3310. Cost Accounting I. (3). (331)**
 Material inventory records, inventory evaluation, accounting for labor, distribution of manufacturing costs, introduction to process cost. Both semesters. PREREQUISITE: Accounting 2020.
- 3320. Cost Accounting II. (3). (332)**
 Process costs, estimated costs, standard costs, budgets. Both semesters. PREREQUISITE: Accounting 3310.
- 4210. Advanced Accounting I. (3). (421)**
 Partnerships, consignments, installment sales, insurance, statement of affairs, receiver's accounts, statement of realization and liquidation, annuities, estates and trusts. Fall semester. PREREQUISITE: Accounting 3120.

- 4220. Advanced Accounting II. (3). (422)**
Agencies, home and branch offices, consolidations, mergers, foreign exchange. Spring semester. PREREQUISITE: Accounting 3120.
- 4240. Auditing I. (3). (424)**
Ethics in accounting practices, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients. Fall semester. PREREQUISITES: Accounting 3120, 3320.
- 4250. Auditing II. (3). (425)**
Application of auditing principles to verification of financial statements, preparation of reports, case studies applicable to specific industries, current trends. A practice audit is carried out. Spring semester. PREREQUISITE: Accounting 4240.
- 4450. Accounting Systems. (3). (445)**
Problems involved in designing accounting installations for various types of business, including the designing of clerical departments and planning of required mechanical devices. Spring semester. PREREQUISITE: Accounting 3120.
- 4460. Controllership. (3). (446)**
Training in the field of administrative accounting, duties and functions of the controller, organization of the controller's office. Fall semester. PREREQUISITE: Accounting 3320.
- 4510. Federal Income Tax I. (3). (451)**
Regulations pertaining to individuals and partnerships. Fall semester. PREREQUISITE: Accounting 3120, or permission of the instructor.
- 4520. Federal Income Tax II. (3). (452)**
Laws and regulations for corporations, estates, and fiduciaries. Spring semester. PREREQUISITE: Accounting 4510.
- 4540. Governmental Accounting. (3). (454)**
Accounting theory and practice applicable to federal, state, and local government; and to nonprofit institutions; budgetary control; control, classification, and use of funds; financial statements and reports. Fall semester. PREREQUISITE: Accounting 3120.
- (The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)*
- 5110. Accounting Theory I. (3). (S-511)**
A study of the broad aspects and objectives of accounting with emphasis on generally accepted accounting principles, modern accounting trends, and contemporary controversial topics through a study of current releases of the American Institute of Certified Public Accountants, the American Accounting Association, and other research related to changing accounting concepts. PREREQUISITE: Accounting 4220, or permission of the instructor.
- 5120. Accounting Theory II. (3). (S-512)**
A further study of the development of accounting theory and the influence of professional accounting societies and regulatory agencies upon the accounting profession. PREREQUISITE: Accounting 5110.
- 5240. Advanced Auditing. (3). (S-524)**
Review and refinement of generally accepted auditing standards, procedures and extension of auditing procedures; preparation of audit reports and study of special investigations; study of auditing

research bulletins of the American Institute of Certified Public Accountants, and pronouncements of the S. E. C. and other regulatory agencies. **PREREQUISITE:** Accounting 3240 or 4240 or permission of instructor.

- 5310. Standard Cost. (3). (S-531)**
Budgets, determination of standards, variances and their functions, cost reports, profit projecting. **PREREQUISITE:** Accounting 3320.
- 5510. Advanced Taxation. (3). (S-551)**
Selected research and study in the taxation of individuals and business organizations by federal and state governments; preparation of selected state and federal tax returns including those associated with income, excise, gift, death, sales, and payroll; tax practice and procedures. **PREREQUISITE:** Accounting 4520 or permission of instructor.
- 5810. Internship in Accounting. (3). (S-581)**
Seniors majoring in public accounting, after receiving approval of the accounting faculty, are placed in offices of cooperating public accounting firms to receive on-the-job training under the direct supervision of a certified public accountant and the general supervision of the University accounting staff. Credit is allowed upon acceptance of report of work done, verified by supervising accountant, and completion of a qualifying examination. Minimum time: 500 hours. Both semesters.
- 5830. Current Accounting Problems I. (3). (S-583)**
Review of C. P. A. Examination, including theory of accounts, accounting practice, and auditing. Open to persons with substantial accounting backgrounds, and on permission of instructor. Spring semester.
- 5840. Current Accounting Problems II. (3). (S-584)**
Continuation of study of current accounting problems encountered in C.P.A. examinations; review of business law relating to C.P.A. examinations with emphasis on the Uniform Commercial Code; brief review of accounting theory as it pertains to the C.P.A. examination. **PREREQUISITE:** Permission of instructor.

GRADUATE COURSES IN ACCOUNTANCY

Some of the courses described in the preceding section may be taken for graduate credit. For further details of the graduate program see the Bulletin of The Graduate School.

AEROSPACE STUDIES

COLONEL JOHN C. SMITH,
Professor of Aerospace Studies
Room 404, Jones Hall

Details of the Air Force ROTC Program will be found on page 171.

GENERAL MILITARY COURSE

1111. World Military Systems. (1½).

An introductory course exploring the causes of the present world conflict, the role and relationship of military power to that conflict, and the responsibilities of an Air Force Officer; this includes a study of the interrelationship of national power factors; a comparative analysis of the Democratic, Fascist, and Communist ideologies; patterns of

conflict relative to the confrontation between opposing ideologies; and the role of military power as a facet of national policy. A study of world military forces is begun through treatment of the U.S. Department of Defense and the doctrine, mission and functions of the United States Air Force.

One class hour per week and one hour of Corps Training.

1112. World Military Systems. (1½).

A continuation of Aerospace Studies 1111.

One class hour per week and one hour of Corps Training.

2211. World Military Systems. (1½).

A continuation of the study of world military forces and the political-military issues surrounding the existence of these forces. This includes a study of the United States Army and the United States Navy, their doctrines, missions and employment concepts; a study of the military forces of NATO, CENTO, SEATO, and their role in free world security; and an investigation of the military forces of the USSR, the Soviet Satellite Armies, and the Chinese Communist Army. This course concludes with an analysis of the trends and implications of world military power.

One class hour per week and one hour of Corps Training.

2212. World Military Systems. (1½).

A continuation of Aerospace Studies 2211.

One class hour per week and one hour of Corps Training.

PROFESSIONAL OFFICER COURSE

3311. Growth and Development of Aerospace Power. (3).

A survey course concerned with the nature of war; development of airpower in the United States; mission and organization of the Defense Department; Air Force concepts, doctrine, and employment; men; astronautics and space operations; and the future development of aerospace power.

Three class hours per week and one hour of Corps Training.

3312. Growth and Development of Aerospace Power. (3)

A continuation of Aerospace Studies 3311.

Three class hours per week and one hour of Corps Training.

4411. The Professional Officer. (3).

A study of professionalism, leadership and management. This study includes the meaning of professionalism, professional responsibilities, the military justice system; leadership theory, functions and practices; management principles and functions; problem solving; and management tools, practices and controls.

Three class hours per week and one hour of Corps Training.

4412. The Professional Officer. (3).

A continuation of Aerospace Studies 4411.

Three class hours per week and one hour of Corps Training.

4413. Elementary Aeronautics. (2).

An introduction to aviation and the basic principles of flight; basic meteorology and its applications to aviation; basic use of navigation

computers, instruments, and radio aids, basic regulations governing airmen, aircraft operations, and flight safety. This course is designed to prepare the student for the FAA Private Pilot Written Examination. **PREREQUISITE:** Aerospace Studies 3311 and 3312 or permission of the Professor of Aerospace Studies.

Three class hours per week.

ANTHROPOLOGY

(See SOCIOLOGY AND ANTHROPOLOGY)

ART

PROFESSOR DANA DOANE JOHNSON, *Chairman*
Room 310, Jones Hall

Requirements for the major and minor in art are listed on page 129; the program for the Bachelor of Fine Arts degree is outlined on page 124.

- 1101. Introduction to Art. (3). (111)**
An introduction to the fundamental principles of the fine arts, aimed at providing an understanding of art products and processes as a basis for judgment and enjoyment of all types of art expression.
- 1201. Basic Design. (3). (121)**
An introduction to design as a basic factor in creative expression.
- 1204. Color Fundamentals. (3). (122)**
A modern approach to the study of color, its use and enjoyment.
- 1211. Basic Lettering. (3). (113)**
Fundamental letter construction, the history of alphabets, and the effects of tools and materials upon individual letter forms, with problems in hand lettering in both pen and brush techniques.
- 1311. Beginning Drawing. (3). (115)**
An introduction to the materials and techniques of basic drawing.
- 1314. Figure Structure. (3). (116)**
Analysis of the structure of the human figure with emphasis on contour, gesture, and volume.
- 1552. Introduction to Architecture. (3).**
A survey of contemporary architectural theory, its development and practice.
- 1553. Architectural Graphics. (3).**
Fundamentals of graphic representation, designed to develop abilities in the theories of projection.
- 1554. Architectural Graphics. (3).**
Fundamentals of graphic representation; techniques and materials of freehand drawing.

- 2101. World Art I. (3).**
The development of the visual arts from prehistoric times through the medieval period; their use by man as a social, cultural, and educational force; brief survey of the art of the Far East.
- 2102. World Art II. (3).**
Continues (but does not presuppose) World Art I; a survey of the development of the visual arts from the medieval period through the Renaissance to the present.
- 2201. Design. (3).**
A continued study of the elements of design, using a variety of materials and methods. **PREREQUISITE:** Art 1201 and 1204, or permission of the instructor.
- 2202. Design. (3).**
A continuation of Art 2201, with attention given to three-dimensional problems in design. **PREREQUISITE:** Art 2201, or permission of the instructor.
- 2211. Typography. (3). (Same as Journalism 2211).**
A lecture laboratory study of the development of type and the processes of composition, engraving, stereotyping, and printing. Students are provided opportunities to practice the effective use of type and illustration in mass communication.
- 2213. Lettering and Layout. (3). (207)**
Practical problems involving lettering and layout.
- 2231. Interior Design. (3). (215)**
A survey of the field of interior design and some of its underlying principles.
- 2232. Interior Design. (3).**
A continuation of Art 2231, with emphasis on spatial relations. **PREREQUISITE:** Art 2231, or permission of the instructor.
- 2241. Textile Design. (3). (216)**
An introduction to the field of fabric designing with emphasis on creative problems.
- 2311. Perspective. (3). (214)**
Theory and practice of perspective projection and its various applications.
- 2313. Drawing. (3).**
Advanced problems of communication through exploration of varied graphic media and methods. **PREREQUISITE:** Art 1311 and 1314, or permission of the instructor.
- 2314. Drawing. (3).**
A continuation of Art 2313, with emphasis on personal expression. **PREREQUISITE:** Art 2313, or permission of the instructor.
- 2321. Drawing and Painting. (3). (213)**
Theory and practice in drawing and painting in various media.
- 2351. Graphics. (3). (241)**
An introduction to the graphic arts, primarily concerned with the planning and execution of woodcuts.
- 2511. Sculpture. (3). (231)**
An introduction to the basic materials and techniques of sculpture.
- 2551. Architectural Design. (4).**
Principles of spatial composition and structural organization, incor-

porating concepts of the scale and movement of man in space.

- 2552. Architectural Design. (4).**
Continuation of Art 2551; approaches to architectural design through the analysis of design determinates relating man to his environment.
- 2553. Architectural Graphics. (2).**
Theory and techniques of graphic architectural presentation with emphasis on the various linear media.
- 2554. Architectural Graphics. (2).**
Continuation of Art 2553 with emphasis on watercolor and applied media.
- 3101. History of Interior Architecture and Furniture. (3).**
Survey of interior architecture, furniture design, and decorative arts from the Egyptian era to the 18th century.
- 3102. History of Interior Architecture and Furniture. (3).**
Survey of interior architecture, furniture design, and decorative arts from the 18th century to the present day.
- 3121. Ancient Art. (3). (337)**
A study of architecture, sculpture, painting, and the minor arts from prehistoric times to the fall of the Roman Empire, including Egyptian, Sumerian, Greek, and Roman art.
- 3161. Art in America I. (3). (313)**
The development of American art including architecture, sculpture, painting, and the minor arts from pre-Columbian times to 1893.
- 3162. Art in America II. (3).**
A continuation of Art 3161, dealing with architecture, sculpture, and painting in America from 1893 to the present.
- 3221. Advertising Design. (3). (315)**
An introduction to the methods and techniques of advertising layout, with practical problems involving roughs, presentation, and finished art work.
- 3222. Advertising Design. (3). (316)**
A continuation of Art 3221, offering further study in the technique of newspaper, magazine, and direct-mail layout.
- 3223. Packaging and Display. (3). (323)**
A study of package designing and display techniques.
- 3231. Interior Design. (3). (317)**
Practical problems in interior architecture and design. PREREQUISITE: Art 2231 or permission of instructor.
- 3232. Interior Design. (3). (318)**
A combination of Art 3231, offering further study in interior organization and the designing of residential and commercial interiors. PREREQUISITE: Art 2231 and 3231 or permission of instructor.
- 3331. Oil. (3). (333)**
A preliminary course in the theory and practice of oil painting.
- 3332. Oil. (3). (334)**
A continuation of Art 3331 with special attention given to the essentials of still-life, landscape, and portrait painting.
- 3333. Casein. (3). (331)**
Theory and practice in casein painting.

- 3334. Casein. (3). (332)**
A continuation of Art 3333 with emphasis on further development of techniques.
- 3351. Graphics. (3). (335)**
A continued study in the graphic arts with further emphasis on woodcut and etching. **PREREQUISITES:** Art 2351, or permission of the instructor.
- 3352. Graphics. (3). (336)**
A continuation of Art 3351 with emphasis turning to personal expression. **PREREQUISITES:** Art 2351 and 3351, or permission of the instructor.
- 3411. Art Education. (3). (301)**
An introductory course in the development of skills and methods in the school art program, with emphasis on materials and ideas important to children's art expression and growth.
- 3511. Sculpture. (3).**
The problems of sculptural form as expressed in metal, wood, and related materials.
- 3512. Sculpture. (3).**
A continuation of Art 3511 with further emphasis on techniques.
- 3513. Ceramic Sculpture. (3).**
The problems of sculptural form as they relate to ceramic media.
- 3514. Ceramic Sculpture. (3).**
A continuation of Art 3513 with further emphasis on techniques.
- 3521. Ceramics. (3). (339)**
An introductory course in pottery-making, including hand forming and production processes using clays, plaster, and cements.
- 3522. Ceramics. (3). (340)**
A continuation of Art 3521, offering further study in pottery-making and glazing with emphasis on design.
- 3531. Arts and Crafts. (3). (361)**
Introductory arts and crafts, including leather and metal craft, weaving, and ceramics, as they relate to educational and recreational areas.
- 3541. Packaging and Display. (3). (324)**
A continuation of Art 3223 with attention given to trademark designs, package renderings and practical displays.
- 4111. Prehistoric Art. (3).**
An examination of the art products of the various Paleolithic, Mesolithic, Neolithic, Bronze, and Iron Age cultures, with emphasis given to Franco-Cantabrian Cave Paintings and Megalithic Architecture.
- 4131. Early Christian and Byzantine Art. (3).**
The development of architecture, sculpture, and painting through the early medieval period, with emphasis on early Christian and Byzantine art.
- 4134. Romanesque and Gothic Art. (3).**
The development of architecture, sculpture, and painting during the Romanesque and Gothic periods.

- 4141. Renaissance Art. (3). (411)**
Western art and architecture from the medieval period through the Renaissance.
- 4146. Baroque Art. (3).**
An historical study of the architecture, sculpture, and painting from the end of the Renaissance to the Industrial Revolution.
- 4151. Nineteenth-Century Art. (3).**
A study of the art movements of the nineteenth century from Neo-Classicism to Impressionism.
- 4154. Twentieth-Century Art. (3).**
A study of the major art developments in Europe and the United States from Post-Impressionism to the present.
- 4163. Pre-Columbian Art. (3).**
A specialized study of the art and architecture of the Pre-Inca and Inca peoples of South America and the Maya, Zapotec, Toltec, Aztec, and related peoples of Mexico.
- 4171. Oriental Art. (3). (409)**
A general survey of Oriental art from the earliest times to the present, dealing specifically with Persian, Indian, Chinese, and Japanese art.
- 4181. Primitive Art. (3). (451)**
A survey of the art of the primitive Negro of Africa, the aboriginal peoples of Oceania, and the American Indian.
- 4221. Advertising Design. (3). (423)**
Advanced problems in the fields of advertising and merchandising design. **PREREQUISITES:** Art 3221 and 3222 or permission of the instructor.
- 4222. Advertising Design. (3). (424)**
A continuation of Art 4221 with special attention given to individual problems and to personal approach. **PREREQUISITES:** Art 3221, 3222, and 4221, or permission of the instructor.
- 4231. Interior Design. (3). (429)**
Advanced study in interior design. Problems in designing complete interiors for homes and commercial structures. **PREREQUISITES:** Art 2231, 3231, and 3232, or permission of instructor.
- 4232. Interior Design. (3). (430)**
A continuation of Art 4231 with further problems in home and commercial interiors. **PREREQUISITES:** Art 2231, 3231, 3232, and 4231, or permission of instructor.
- 4233. Interior Rendering. (3). (425)**
Professional techniques in the rendering of interiors and the construction of models.
- 4234. Interior Rendering. (3). (426)**
A continuation of Art 4233 with further emphasis on rendering techniques.
- 4235. Interior Design Research. (3).**
Intensive study of special areas of interior design with emphasis on space planning and lighting. **PREREQUISITE:** Art 3232, or permission of the instructor.
- 4236. Interior Design Research. (3).**
Continuation of Art 4235 with emphasis on furniture design and

construction. **PREREQUISITE:** Art 4235, or permission of the instructor.

- 4321. Drawing and Painting. (3). (431)**
An advanced course in drawing and painting methods with emphasis on transparent watercolor. **PREREQUISITES:** Art 2321 or permission of instructor.
- 4322. Drawing and Painting. (3). (432)**
A continuation of Art 4321 with attention given to various mixed media. **PREREQUISITES:** Art 2321 and 4321 or permission of instructor.
- 4331. Oil. (3). (433)**
A consideration of advanced problems in oil painting, presupposing that the student has mastered basic techniques and is ready for a more experimental approach to the subject. **PREREQUISITES:** Art 3331 and 3332, or the permission of the instructor.
- 4332. Oil. (3). (434)**
A continuation of Art 4331 with emphasis on the development of a personal style. **PREREQUISITES:** Art 3331, 3332, and 4331, or permission of the instructor.
- 4341. Illustration. (3). (421)**
A survey of the many areas requiring the services of an illustrator and including the preparation of book, magazine, advertising, and television illustrations.
- 4342. Illustration. (3). (422)**
A continuation of Art 4341, dealing with analysis of fine art techniques of drawing and painting as they apply to commercial illustration.
- 4351. Graphics. (3). (441)**
Specialization in one or two graphic media. Students are encouraged to develop a personal imagery and the necessary technical abilities. **PREREQUISITES:** Art 2351, 3351, and 3352, or permission of the instructor.
- 4352. Graphics. (3). (442)**
The culminating course in the graphic arts in which work may be done in woodcut, etching, or lithography. **PREREQUISITES:** Art 2351, 3351, 3352, and 4351, or permission of the instructor.
- 4511. Sculpture. (3).**
Advanced work in various sculptural media. **PREREQUISITE:** Art 2511, 3511, and 3512, or permission of the instructor.
- 4512. Sculpture. (3).**
A continuation of Art 4511 with emphasis upon personal expression. **PREREQUISITE:** Art 4511, or permission of the instructor.
- 4551. Working Drawings and Professional Practice. (3).**
Detailing of interior construction and scheduling of finishes. **PREREQUISITE:** Art 3232, or permission of the instructor.
- 4552. Working Drawings and Professional Practice. (3).**
A continuation of Art 4551. **PREREQUISITE:** Art 4551, or permission of the instructor.
- 4611. Art Seminar. (3). (461)**
Original research in the student's area of concentration, the extent of the project to be approved by the art faculty.

- 4621. Workshop in Art. (3). (415)**
The study of specific art problems as they apply to the individual student with emphasis on basic art concepts and creative experience. **PREREQUISITE:** permission of the instructor.
- 4622. Workshop in Art. (3). (416)**
A continuation of Art 4621, providing study of problems appropriate to the need of the individual student. **PREREQUISITE:** permission of the instructor.
- 4641. Study and Travel in Art. (3 or 6). (407)**
Travel to important art areas of the world and specialized study under the direction of a faculty member of the Department of Art.

BIOLOGY

PROFESSOR CARL DEE BROWN, *Chairman*
Room 103, Biology Building

Requirement for the major and minor in biology are listed on page 129. Information concerning pre-professional curricula will be found on page 107 and 120. The program for the degree of Bachelor of Science in Medical Technology is outlined on page 127.

ADVANCED PLACEMENT

Beginning freshmen who have completed an advanced biology course in high school may apply to the chairman of the Department of Biology, during the semester preceding enrollment, for advanced placement. For further details of advanced placement, see page 100.

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- 1001. Introduction to Biology. (3). (111)**
An introductory survey of biology, with emphasis on the animal kingdom, designed for non-science majors. Credit in this course is not acceptable for the biology major or in related pre-professional curricula. Credit not allowed for both Biology 1001 and 1600.
Two lecture, two laboratory hours per week.
- 1002. Introduction to Biology. (3). (112)**
A continuation of Biology 1001, with emphasis on the plant kingdom. Credit in this course is not acceptable for the biology major or in the pre-professional curricula. Credit not allowed for both Biology 1002 and 1200.
Two lecture, two laboratory hours per week.
- 1200. General Plant Biology. (4). (141)**
A survey of the plant kingdom considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms.
Three lecture, two laboratory hours per week.
- 1400. Microbiology. (4). (130)**
A course designed to meet the requirements of student nurses and majors in the Department of Health and Physical Education.
Three lecture, two laboratory hours per week.
- 1600. General Animal Biology. (5). (142)**
A survey of the animal kingdom considering distribution, taxonomic relationships, morphology, physiology, and economic importance of selected forms.
Three lecture, four laboratory hours per week.

- 1631. Human Anatomy and Physiology. (3). (131)**
A study of the structure and function of the human organism, designed primarily for majors in the Department of Health and Physical Education.
Two lecture, two laboratory hours per week.
- 1632. Human Anatomy and Physiology. (3). (132)**
A continuation of Biology 1631, designed primarily for majors in the Department of Health and Physical Education. **PREREQUISITE:** Biology 1631 or the equivalent.
Two lecture, two laboratory hours per week.
- 1660. Anatomy and Physiology of the Eye. (3). (133)**
A detailed study of the structure and function of the human eye and related areas of the nervous system. Open only to students preparing to instruct the visually handicapped. This course will not satisfy any part of the science requirement for the baccalaureate degree.
Two lecture, two laboratory hours per week.
- 1731. Anatomy and Physiology. (4). (121)**
A detailed study of the structure and functions of the human organism. This course is open only to student nurses.
Three lecture, two laboratory hours per week.
- 1732. Anatomy and Physiology. (4). (122)**
A continuation of Biology 1731. This course is open only to student nurses. **PREREQUISITE:** Biology 1731 or the equivalent.
Three lecture, two laboratory hours per week.
- 2001. Elements of Biology. (3).**
A study of the basic concepts of animal and plant life. (This course, designed for students in The School of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other schools of the University.)
Two lecture, two laboratory hours per week.
- 2002. Natural History and Bio-Conservation. (3).**
Emphasis is placed on plants and animals in their environment, the use of field work in teaching elementary science, and the study of ecological principles related to bio-conservation. (This course, designed for students in The School of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other schools of the University.) **PREREQUISITE:** Biology 2001.
Two lecture, two laboratory hours per week.
- 2260. Hydroponics. (2). (225)**
A study of the techniques used in growing higher plants in nutrient solutions. **PREREQUISITE:** Biology 1200 and 1600.
One lecture, two laboratory hours per week.
- 3000. Nature Study and Bio-Conservation. (3). (303)**
Designed to stimulate an interest in living things in their environment and to encourage the use of field work in teaching nature study and conservation in the elementary school.
Two lecture, two laboratory or field hours per week.
- 3050. General Ecology. (4). (352)**
The study of plant and animal communities in relation to their environment. **PREREQUISITES:** Biology 1200 and 1600, or the equivalent.
Two lecture, four laboratory hours per week.

- 3070. Genetics. (4). (300)**
A study of the principles of heredity, including laboratory experiments in *Drosophila* breeding. **PREREQUISITES:** Biology 1200 and 1600, or the equivalent.
Three lecture, three laboratory hours per week.
- 3100. History of Biology. (3). (315)**
The development of the science of biology, considering the work of outstanding biologists and the influence of their contributions. **PREREQUISITE:** 16 semester hours in biology, or permission of the instructor.
- 3170. Heredity. (3). (301)**
The principles of heredity with applications to human problems, designed for non-science majors and recommended for students who desire a better understanding of heredity and eugenics. Not acceptable as credit toward a biology major.
Three lecture-discussion hours per week.
- 3240. Field Botany. (4). (304)**
Observation, classification, and mounting of representative specimens of flowering plants in the Memphis area. **PREREQUISITE:** Biology 1200 or the equivalent.
Two lecture, four laboratory hours per week.
- 3400. The Relation of Microorganisms to Man. (3). (330)**
The nature and activities of the microorganisms as they affect the welfare of man; some time is devoted to the pathogens—etiology and transmission of diseases, immunity, and other factors bearing upon the health of the individual and the community. Designed for non-science majors.
- 3500. General Bacteriology. (4). (302)**
A general course dealing with the fundamentals of bacteriology. **PREREQUISITE:** one year of biology or one year of chemistry.
Two lecture, four laboratory hours per week.
- 3570. Microbial Genetics. (3). (322)**
A study of genetics of microorganisms; identification of hereditary determinants, methods of replication and transmission, and control over metabolism and development. **PREREQUISITE:** Biology 3500 or the equivalent.
Two lecture, two laboratory hours per week.
- 3600. Ornithology. (4). (340)**
A study of the habitats, migrations, nesting habits, and classification of birds. Field trips for recognition of the more common local birds will be organized as needed. **PREREQUISITE:** Biology 1600, or the equivalent.
Two lecture, four laboratory hours per week.
- 3610. Vertebrate Embryology. (4). (332)**
The development of selected vertebrate embryos from the fertilized egg cell. **PREREQUISITE:** Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.
- 3620. Comparative Anatomy of Vertebrates. (5). (331)**
The origin, development, structure, and functions of the organs and systems of selected forms of vertebrates. **PREREQUISITE:** Biology 1600, or the equivalent.
Two lecture, six laboratory hours per week.

- 3630. The Physiology of Exercise. (3). (344)**
The anatomy and physiology of muscular movement. PREREQUISITES: Biology 1631 and 1632, or the equivalent.
Three lecture-demonstration hours per week.
- 3730. Animal Physiology. (4). (341)**
A study of the essential functions of living organisms, considering necessary structural relationships and emphasizing the normal function of the human body. PREREQUISITES: Biology 1600 (or the equivalent) and one year of chemistry.
Three lecture, two laboratory hours per week.
- 3800. Parasitology. (4). (361)**
Distribution, morphology, life history, economic importance, and control of some of the parasites of man and domestic animals; Protozoa through helminths. PREREQUISITE: Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.
- 3900. General Entomology. (3). (311)**
An introduction to the insects with emphasis on morphology, physiology, development, behavior, and ecology. PREREQUISITE: Biology 1600 or the equivalent.
Two lecture, two laboratory hours per week.
- 3920. Insect Morphology. (4). (314)**
A study of the form and structure of insects, considering both external and internal morphology. PREREQUISITE: Biology 1200 and 1600, or the equivalent.
Two lecture, four laboratory hours per week.
- 3930. Introduction to Insect Physiology. (3). (312)**
A study of physiology as applied to the life processes of insects. PREREQUISITE: Biology 3900 and 3940 or the equivalent.
Two lecture, two laboratory hours per week.
- 3940. Systematic Entomology. (3). (312)**
Classification of the insects, the interpretation and use of keys, and the preparation of a representative collection. PREREQUISITE: Biology 1600 or the equivalent.
One lecture, four laboratory hours per week.
- 3960. Medical Entomology. (4). (362)**
Distribution, morphology, life history, economic importance, and control of some of the insects and other arthropods which are parasites or serve as vectors for disease-producing organisms. PREREQUISITE: Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.
- 4000. Problems in Biology. (2 to 4). (400)**
Individual problems pursued by qualified students under supervision of a member of the biology faculty, designed to develop interest and proficiency in biological research.
- 4030. Cellular Physiology. (4). (450)**
A study of the fundamental unit of all living things, considering the basic activities of cells: nutrition, adaptation, growth, and reproduction. PREREQUISITE: Biology 3730 or the equivalent.
Two lecture, four laboratory hours per week.

4080. Radiation Biology. (3).

Effects of ionizing and excitational radiations upon life processes. PREREQUISITES: Biology 3070, Chemistry 3312 or 3412), Physics 1112 (or 2112).

Two lecture, two laboratory hours per week.

4100. Organic Development. (3). (410)

The consideration of theoretical and scientific evidences concerning the origin, development, and establishment of the major groups of living and extinct animals and plants. Recommended for biology majors and general students as well. PREREQUISITE: One year of biology.

4221. Plant Morphology. (4). (401)

Comparative studies of general structure of lower plants, exclusive of bacteria and related forms, through the Bryophytes. PREREQUISITE: Biology 1200 or the equivalent.

Two lecture, four laboratory hours per week.

4222. Plant Morphology. (4). (402)

A continuation of Biology 4221, considering the vascular plants. PREREQUISITE: Biology 1200 or the equivalent.

Two lecture, four laboratory hours per week.

4231. Plant Physiology. (4). (426)

A study of the principles of physiology and their application to the lower plant groups, exclusive of the bacteria and related forms. PREREQUISITE: permission of the instructor.

Two lecture, four laboratory hours per week.

4232. Plant Physiology. (4). (425)

Principles of physiology and their application to the living organism, with emphasis on higher plants. PREREQUISITE: permission of the instructor.

Two lecture, four laboratory hours per week.

4240. Plant Taxonomy. (4). (420)

Principles of plant taxonomy, with special attention given to the classification of selected vascular plant families. PREREQUISITE: permission of the instructor.

Lectures, laboratory hours, and field trips.

4260. Histological Technique. (3). (404-A)

A study of the methods of preparing plant tissues for microscopic study; theories of staining and preparation of permanent mounts. Credit not allowed for both 4260 and 4660. PREREQUISITE: Biology 1200, or consent of instructor.

One lecture, four laboratory hours per week.

4400. Advanced Microbiology. (4).

Advanced theory and principles of microbiology with emphasis on morphology and bacterial metabolism. PREREQUISITE: Biology 3500 and one year of introductory biology, one year of inorganic chemistry, with organic chemistry desirable.

Two lecture, four laboratory hours per week.

4440. Determinative Bacteriology. (4).

Methods of bacteriological technique, pure culture studies, and classification of bacteria. PREREQUISITE: Biology 3500, one year of introductory biology, one year of inorganic chemistry, with organic chemistry desirable.

Two lecture, four laboratory hours per week.

- 4460. Sanitary Bacteriology. (4). (405)**
A study of microorganisms in relation to water and sewage; disinfection and disinfectants. **PREREQUISITE:** Biology 3500 or the equivalent.
Two lecture, four laboratory hours per week.
- 4560. Microbiology of Foods. (4). (406)**
Microorganisms in natural and processed foods; origins, nature, and effects on foods; enumeration; and the relation to health. **PREREQUISITE:** Biology 3500 or the equivalent.
Two lecture, four laboratory hours per week.
- 4620. Vertebrate Histology. (4). (403)**
Microscopic study of normal tissues and organs of the vertebrate body. **PREREQUISITE:** Biology 3620 or 3730.
Two lecture, four laboratory hours per week.
- 4630. General Endocrinology. (3).**
Anatomy and physiology of the organs of internal secretion; role of hormones in metabolism and development. **PREREQUISITE:** Biology 3730.
- 4640. Field Zoology. (4). (440)**
Field study of the identification, life history, and habitat of the animals of this locality; birds and insects are omitted. **PREREQUISITE:** 8 semester hours of biology, including Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.
- 4660. Histological Technique. (3). (404-B)**
Methods of preparing animal tissues for microscopic study; theories of staining and preparation of permanent mounts. Credit not allowed for both 4260 and 4660. **PREREQUISITE:** Biology 1600 or consent of the instructor.
One lecture, four laboratory hours per week.
- 4720. Comparative Neurology. (4). (460)**
A detailed study of the nervous system of selected animals with emphasis on the vertebrates. **PREREQUISITE:** permission of the instructor.
Two lecture, four laboratory hours per week.
- 4740. Mammalogy. (4).**
Classification, distribution, life histories, economic importance, techniques of field study, methods of collection and preservation of mammals. **PREREQUISITE:** Biology 3620.
Two lecture, four laboratory hours per week.
- 4744. Herpetology. (3).**
Classification, distribution, life histories, techniques of collection and preservation, natural habitats of North American reptiles and amphibians.
Two lecture, two laboratory hours per week.
- 4840. Invertebrate Zoology. (4). (430)**
The invertebrate animals, exclusive of the insects, with special attention given to phylogeny, organology, and taxonomy. **PREREQUISITE:** Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. Neither of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

- 5100. Instrumentation. (2). (S-530)**
A consideration of recent development in biological techniques which may be applied to the study of living organisms.
- 5840. Protozoology. (4). (S-560)**
A survey of the free living and parasitic protozoa, with consideration given to structure, taxonomy, habitat, and life history. **PREREQUISITE:** Biology 1600 or the equivalent.
Two lecture, four laboratory hours per week.

GRADUATE COURSES IN BIOLOGY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

CHEMISTRY

PROFESSOR JESSE WELLS FOX, *Chairman*
Room 210, Chemistry Building

The Department of Chemistry offers majors and minors in chemistry and physical science; requirements are listed on page 129. The Department also offers the professional degree of Bachelor of Science in Chemistry, details of which are outlined on page 123. This program is designed to meet the requirements of the Committee on Professional Training of the American Chemical Society. Students completing this program may go directly into positions in the chemical industry or may enroll for graduate study in chemistry, leading to research positions, college teaching, or other positions requiring an advanced degree. Information concerning pre-professional curricula will be found on page 120. The program for the degree of Bachelor of Science in Medical Technology is outlined on page 127.

SEQUENCE OF COURSES

Students who have not successfully completed a high school course in chemistry (or those who have an evident deficiency) should enroll in Chemistry 1100, credit for which will not apply toward any major or minor in this department. Students who present high school credit in chemistry, or those who have credit in Chemistry 1100, will begin with either Chemistry 1051 or Chemistry 1111 (Chemistry 1051 and 1052 are designed to meet graduation requirements for students who wish to take only one year of college chemistry; students who plan to take *more* than one year of college chemistry and who meet the qualifications outlined above should enroll in Chemistry 1111.) Students with credit in Chemistry 1052 must take Chemistry 1112 (as duplicate credit) before they are eligible to enroll in any higher numbered chemistry course.

ADVANCED PLACEMENT

Beginning students who have had high school chemistry and who have had advanced training in summer institutes, research participation projects, advanced high school chemistry courses, etc., are invited to apply, during the semester preceding enrollment, to the chairman of the Department of Chemistry for advanced placement. If previous experience and grades on a qualifying examination merit consideration, grades will be given on beginning courses for which examinations are satisfactorily completed. For further details of advanced placement, see page 100.

CHEMISTRY

- 1000. Chemistry for Nurses. (4). (100s)**
 A study of the application of chemistry in health and disease, designed to meet the need of students who plan to enter the nursing profession. Approximately one-half of the semester is allocated to general chemistry, one-fourth to organic chemistry, and one-fourth to biochemistry.
Three lecture, two laboratory hours per week.
- 1051. Elementary Chemistry. (4).**
 A study of the chemistry of the more important elements and compounds, designed for students who do not expect to take more than two semesters of chemistry. *This course will not be credited toward a major or minor in chemistry or physics.*
Three lecture, two laboratory hours per week.
- 1052. Elementary Chemistry. (4).**
 A continuation of Chemistry 1051, including the more important compounds of carbon as found in petroleum, foods, fabrics, etc. *This course will not be credited toward a major or minor in chemistry or physics.* PREREQUISITE: Chemistry 1051.
Three lecture, two laboratory hours per week.
- 1100. Introduction to Chemistry. (2). (110)**
 Designed for students whose curriculum requires Chemistry 1111 and 1112 but whose previous chemistry background is inadequate for enrollment in Chemistry 1111. Stress is placed on Scientific calculations and the properties of matter. *Credit in this course will not apply toward a major or minor in chemistry, physics, or physical science, nor will it satisfy any part of the science requirements for any degree.* COREQUISITE: Mathematics 1211 or 1212 is recommended.
Two lectures per week.
- 1111. General Chemistry. (4). (111)**
 The basic course and a prerequisite for all higher-numbered courses in chemistry, covering atomic structure and its relationship to the physical and chemical properties of the elements, the states of matter, properties of gases and solutions, oxidation-reduction reactions, acid-base reactions, colloids, and a study of the periodic relationships of elements. Required of all chemistry and physics majors and minors and of students following pre-professional curricula in medicine, dentistry, pharmacy, engineering, and medical technology. PREREQUISITE: One unit in high school chemistry or credit in Chemistry 1100. COREQUISITE: Mathematics 1211 or 1212.
Three lecture, three laboratory hours per week.
- 1112. General Chemistry. (4). (112)**
 A continuation of Chemistry 1111, covering the chemistry of more important metals, chemical equilibrium and the Law of Mass Action, electrochemistry, oxidation potentials, and chemistry of some of the more important non-metals. The laboratory is elementary qualitative analysis. PREREQUISITES: Chemistry 1052 or 1111, and Mathematics 1211 or 1212.
Three lecture, three laboratory hours per week.
- 2000. Elementary Quantitative Analysis for Biological Sciences. (4). (200)**
 Designed for students in the biological sciences, with stress on the care and use of the analytical balance and the theory and practice of volumetric analysis and colorimetry. *Credit in this course will not*

apply toward a major in chemistry. PREREQUISITE: Chemistry 1112.

Three lecture, four laboratory hours per week.

2010. Elementary Physical Chemistry. (4). (201)

A brief course in physical chemistry, designed primarily for students who will continue their studies in biochemistry, medicine, and biology; recommended for those planning to teach the physical sciences in secondary schools who do not have the mathematics required for Chemistry 3411. *Credit in this course will not apply toward a major in chemistry or physics.* PREREQUISITES: Chemistry 2000 or 2200, and Physics 2111 or 2511.

Three lecture, three laboratory hours per week.

2200. Quantitative Analysis. (4). (220)

The theory and practice of gravimetric and titrimetric quantitative chemical analysis, with stress on principles and techniques of gravimetry, titrimetry, and stoichiometry. Laboratory work includes the use of the analytical balance, and preparation of standard solutions, and the analysis of samples. PREREQUISITES: Chemistry 1112 and Mathematics 1211 or 1212.

Two lecture, six laboratory hours per week.

3311. General Organic Chemistry. (4). (Formerly 3211). (321)

A systematic study of the preparations and properties of organic compounds and their interpretation according to modern theories of organic chemistry. Particular emphasis will be placed on aliphatic and aromatic hydrocarbons, their halogen derivatives, and alcohols. PREREQUISITE: Chemistry 1112; Chemistry 2010 or 2200 is recommended.

Three lecture, three laboratory hours per week.

3312. General Organic Chemistry. (4). (Formerly 3212). (322)

A continuation of 3211, with emphasis on the more important functional derivatives of aliphatic and aromatic hydrocarbons. PREREQUISITE: Chemistry 3211.

Three lecture, three laboratory hours per week.

3411. Physical Chemistry. (4). (341)

The fundamental principles of physical chemistry, including kinetic theory, thermo-chemistry, the laws of thermodynamics, solutions, and phase equilibria. PREREQUISITES: Chemistry 2000 or 2200; Physics 2112 or 2512; Mathematics 2321.

Three lecture, three laboratory hours per week.

3412. Physical Chemistry. (4). (342)

A continuation of Chemistry 3411, considering such topics as irreversible processes, electromotive force, ionic equilibria, quantum theory, molecular structures, crystals, and surface chemistry. PREREQUISITE: Chemistry 3411.

Three lecture, three laboratory hours per week.

4011. Biochemistry. (4). (401)

An elementary course dealing principally with chemistry of carbohydrates, proteins, lipids, vitamins, etc., digestion and absorption, with consideration also given to certain physico-chemical topics including the colloidal state, colligative properties, equilibria and buffer mechanisms, and the electrolyte structure of body fluids. PREREQUISITE: Chemistry 3312.

Two lecture, four laboratory hours per week.

- 4012. Biochemistry. (4). (402)**
The topics include blood and other tissues, the excretions, energy metabolism, intermediary chemical metabolism. **PREREQUISITE:** Chemistry 4011.
Two lecture, four laboratory hours per week.
- 4200. Advanced Analytical Chemistry. (3). (420)**
An advanced treatment of the theory and calculations of gravimetric and titrimetric analysis. **PREREQUISITE:** Chemistry 3412, or permission of the instructor.
Three lecture hours per week.
- 4210. Advanced Inorganic Chemistry. (3). (421)**
A presentation of modern inorganic chemistry with emphasis on bonding and structure and their relationship to the properties of inorganic compounds. Periodicity, the principles of acid-base behavior, oxidation potentials, inorganic complex compounds, and non-aqueous solvents are included. **PREREQUISITE:** Chemistry 3412, or permission of the instructor.
Three lecture hours per week.
- 4220. Instrumental Analysis. (3). (422)**
The theory and application of the principles of electrometric, spectrophotometric and chromatographic methods to the collection and interpretation of physical chemical data as well as the application of such methods to analysis. The techniques include potentiometry; conductimetry; voltammetry; visible, ultraviolet, and infrared spectrophotometry; and paper, column, and gas chromatography. **PREREQUISITES:** Chemistry 3412 and 4200.
One lecture, six laboratory hours per week.
- 4310. Organic Qualitative Analysis. (3). (431)**
Characterization of known and identification of unknown, pure organic compounds by solubility tests, class reactions, specific test reagents, and the preparation of derivatives. **PREREQUISITES:** Chemistry 2200 and Chemistry 3312.
One lecture, six laboratory hours per week.
- 4900. Chemical Literature. (1). (490)**
Use of the chemical literature and the writing of technical reports. **PREREQUISITE:** junior standing in chemistry.
One lecture hour per week.
- 4910. Seminar. (1). (491)**
Special projects, reports and investigation of current chemical literature. **PREREQUISITE:** Chemistry 4900.
One lecture hour per week.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

- 5010. Principles of Chemistry. (3). (S501-I)**
This course is intended to acquaint the teacher of high school chemistry with a modern approach to the principles of chemistry, including atomic structure, chemical bonding, the periodic classification of the elements as it relates to their properties, chemical equilibrium and the law of mass action, ionic equilibria, electrochemistry, oxidation potentials, and an introduction to nuclear chemistry. Problems illustrating the quantitative relationships involved in most of these topics are emphasized. The laboratory will include both qualitative and quantitative analytical techniques. The Chemical Bond

Approach materials will be used as a basis for this course. *This course cannot be applied toward a major or minor in chemistry, physics, or physical science.*

Three lecture hours per week.

5020. Principles of Organic Chemistry. (3). (S502-I)

Open only to high school science teachers, this course is the systematic presentation of the fundamental principles of organic chemistry with interpretation of structure and properties in accord with modern atomic and molecular theory. Emphasis is placed upon the sources and uses of organic compounds in our daily lives. Special topics will be developed that will familiarize the high school teacher with the recent advances in the field and areas suitable for special projects for high school students. Laboratory experiments and demonstrations will be developed and performed which may be adapted for use in high school courses. *This course cannot be applied toward a major or minor in chemistry, physics, or physical science.* PREREQUISITE: Two years of college chemistry or Chemistry 5010.

Three lecture hours per week.

5030. Analytical Chemistry. (3). (S503-I)

This course stresses recent analytical methods. It covers the fundamental principles of analytical chemistry including some gravimetric and titrimetric methods but with major emphasis on modern instrumental techniques. These include ultraviolet, visible and infrared spectrophotometry, potentiometric, conductometric, voltametric, and electrolytic methods; and both liquid and gas phase chromatography. *This course cannot be applied toward a major or minor in chemistry, physics, or physical science.* PREREQUISITE: Two years of college chemistry or Chemistry 5010.

Three lecture hours per week.

5410. Advanced Physical Chemistry. (3). (S541)

Thermodynamics in relation to chemical equilibria and reactivity, including such topics as isothermal and adiabatic expansions, cyclic processes, heat content, specific heats, entropy, enthalpy, free energy, and vapor pressures. PREREQUISITES: Chemistry 3412, Mathematics 2322, and permission of department chairman.

PHYSICAL SCIENCE

1031. Principles of Physical Science. (3).

Fundamental principles and concepts of chemistry and physics related to the understanding and teachings of physical science. (*This course, designed for students in The School of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other schools of the University.*)

Three lecture, two laboratory hours per week.

1032. Principles of Physical Science. (3).

Principles and concepts of astronomy, meteorology, and geology related to the understanding and teaching of physical science. PREREQUISITE: Physical Science 1031. (*This course, designed for students in The School of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other schools of the University.*)

Three lecture, two laboratory hours per week.

4050. Glass Manipulation. (2). (Chem. 405)

A laboratory course in the fundamentals of glass manipulation and the construction and repair of simple laboratory apparatus. PREREQUISITE: Senior standing.

Six laboratory hours per week.

4070. General Science for High School Teachers. (3). (407-I)

A study of the fundamental principles of astronomy, chemistry, geology, and physics as they relate to the understanding and teaching of general science. Classroom experiments and demonstrations will be included.

(The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)

5040. Astronomy. (3). (S501-I)

A course in astronomy open to junior and senior high school teachers of science.

GRADUATE COURSES IN CHEMISTRY AND PHYSICAL SCIENCE

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

CLASSICAL LANGUAGES

PROFESSOR ROY E. WATKINS, *Chairman*
Room 215, Jones Hall

Requirements for the major and minor in Latin are listed on page 130. Details of the foreign language requirements for the baccalaureate degrees will be found on page 118.

CLASSICS

3021. Latin and Greek Etymology. (3). (323)

Origin and derivation of words, especially those used in medicine and science. This course is given in English and is open to all students without prerequisite. It may not be used to satisfy any part of the foreign language requirement nor does it apply toward a major in classical languages.

GREEK

1101. Elementary Greek. (3). (111)

Elements of Greek grammar and syntax; practice in reading and translation.

1102. Elementary Greek. (3). (112)

Completion of basic grammar and syntax, with additional readings.

2201. Xenophon. (3). (211)

Reading and interpretation of Xenophon's *Anabasis*.

2202. Homer. (3). (212)

Reading and interpretation of Book IX of Homer's *Odyssey*.

3111. Herodotus. (3). (311)

Reading and analysis of Books VI-VIII of Herodotus' *History*.

3511. Euripides. (3). (321)

Reading and analysis of the dramas *Alcestis* and *Medea*.

3911. Plato's *Apology*, *Crito*. (3).

Reading and analysis of the dialogues of Plato which give a prelude to the death of Socrates.

3912. **Plato's Republic.** (3).
Reading and analysis of selected books of Plato's *Republic*.

LATIN

1101. **Elementary Latin.** (3). (111)
Elements of grammar; practice in Latin composition and translation.
1102. **Elementary Latin.** (3). (112)
Completion of elementary Latin grammar, with additional readings.
2201. **Caesar.** (3). (211)
Reading and analysis of Caesar's *Gallic Wars*, Books I, IV, V.
2202. **Cicero.** (3). (212)
Reading and analysis of selected orations of Cicero.
3111. **Livy.** (3). (311)
Reading and analysis of Livy's *History*, Books XXI, XXII.
3211. **Vergil.** (3). (352)
Reading and analysis of the *Aeneid*.
3411. **Pliny, Martial.** (3). (362)
Reading and analysis of the *Letters* of Pliny and the *Epigrams* of Martial.
3611. **Horace's Satires.** (3). (312)
3811. **Ovid.** (3). (351)
Reading and analysis of myths in Ovid's *Metamorphoses*.
3911. **Lucretius.** (3). (321)
Reading and analysis of Roman philosophy in Lucretius' *De Rerum Natura*, Books I and III.
3912. **Cicero.** (3). (361)
Reading and analysis of *De Amicitia* and *De Senectute*.
4411. **Roman Letter Writers.** (3). (413)
Reading and analysis of Cicero's *Letters*.
4611. **Roman Satire.** (3). (421)
Reading and analysis of Juvenal's *Satires*.
4711. **Catullus, Horace.** (3). (411)
Reading and analysis of Catullus' *Lyric Poems* and Horace's *Odes*.

CURRICULUM AND INSTRUCTION

PROFESSOR HEBER ELIOT RUMBLE, *Chairman*
Room 424, Education Building

The Department of Curriculum and Instruction offers majors in elementary education and secondary education and minors in elementary education, library service, secondary education, and special education; the requirements are listed on page 157.

EDUCATION

2011. **Foundations of Educational Thought and Practice.** (3). (203)
An overview of the whole field of education, with emphasis on those things a prospective teacher should know at the beginning of his professional preparation.

- 2111. Human Growth and Development. (3). (102)**
An attempt to help the student understand child nature and development, to appreciate the fact that all behavior is caused, and to form the habit of seeking bases for both normal and abnormal behavior in situations at home, at school, and in the community.
- 3121. The Psychology of Learning. (3). (201)**
The psychology of learning as applied to activities under the guidance of the school.
- 3211. Materials and Methods, Kindergarten through Third Grade. (3). (383)**
A study of materials and instructional techniques uniquely necessary in working with children in kindergarten through third grade.
- 3241. The Teaching of Language Arts in the Elementary School. (3). (385)**
(formerly The Teaching of Reading and the Other Language Arts in the Elementary School)
The basic concepts of language teaching and learning with a consideration of all the language arts—listening, speaking, reading, and writing—placing particular emphasis on their interrelationships.
PREREQUISITES: Education 2011, 2111, 3121.
- 3251. Teaching Methods in Elementary School Mathematics. (3). (386)**
The mathematical processes required of the elementary school child; reasons for the use of certain methods. PREREQUISITES: Education 2011, 2111, and 3121.
- 3261. Teaching Methods in Elementary School Science. (3). (386)**
A study of the natural environment as a child would view it; activities which challenge a child; reasons for the use of certain methods. PREREQUISITES: Education 2011, 2111, and 3121.
- 3271. Teaching Methods in Elementary School Social Studies. (3). (387)**
A basic course involving methods and materials appropriate to each developmental level of the elementary school child. PREREQUISITE: Education 2011, 2111, and 3121.
- 3301. Teaching Methods in High School Subjects. (3). (381)**
Emphasis is placed on ways in which learning experiences may be organized to insure effective pupil learning. PREREQUISITES: Education 2011, 2111, and 3121.
- *3321. Materials and Methods in High School Art. (1 or 3). (391A)**
- *3322. Materials and Methods in High School Music. (1 or 3). (391K)**
- *3331. Materials and Methods in High School Physical Education. (1 or 3). (391L)**
- *3332. Materials and Methods in High School Health. (1 or 3). (391Q)**
- *3341. Materials and Methods in High School English. (1 or 3). (391D)**
- *3342. Materials and Methods in High School French. (1 or 3). (391E)**

- *3343. **Materials and Methods in High School German. (1 or 3).** (391F)
- *3344. **Materials and Methods in High School Latin. (1 or 3).** (391I)
- *3345. **Materials and Methods in High School Spanish. (1 or 3).** (391O)
- *3346. **Materials and Methods in High School Speech. (1 or 3).** (391P)
- *3351. **Materials and Methods in High School Mathematics. (1 or 3).** (391J)
- *3361. **Materials and Methods in High School Biology. (1 or 3).** (391B)
- *3362. **Materials and Methods in High School Physical Science. (1 or 3).** (391M)
- *3371. **Materials and Methods in High School Social Studies. (1 or 3).** (391N)
- *3381. **Materials and Methods in Vocational Business Subjects. (1 or 3).** (391C-a)
- *3382. **Materials and Methods in Bookkeeping and General Business Subjects. (1 or 3).** (391C-b)
- *3383. **Materials and Methods in High School Home Economics. (1 or 3).** (391G)
- *3384. **Materials and Methods in High School Industrial Arts. (1 or 3).** (391H)

*NOTE: The methods courses in high school subjects include objectives, content, and grade placement of subject; tools of instruction, organization of courses; teaching procedures and practice. A course may be taken for one hour credit (formerly 391W) only if the student has had, or is enrolled in, Education 3301 and is unable to schedule the methods course for three hours credit before graduation. The course, when taken for one hour credit, requires a conference each week with an instructor competent to provide the necessary special instruction. **PREREQUISITES** for the courses are: Education 2011, 2111, and 3121.

- 3385. **Driver Education and Traffic Safety. (3).** (335)
(Same as Industrial Technology 3385.)
Study and practice in the preparation of instructional materials dealing with traffic and safety; care and upkeep of the automobile, and behind-the-wheel instruction. Open only to students whose major or minor is in the Department of Curriculum and Instruction.
Two lecture, two laboratory hours per week.
- 3411. **Survey of Preschool Education. (3).** (382)
Philosophy and theories of preschool education; physical, emotional, social, and mental development of preschool children; keeping of records; working with parents; selecting equipment and supplies; curriculum content; planning a course of study. **PREREQUISITE:** Education 2011, 2111, and 3121.
- 3821. **Observation, Participation, and Practice in the Elementary School. (3).** (325)

A preparatory course for directed student teaching in the elementary school. **PREREQUISITE:** Education 2011, 2111, and 3121.

- 3901. Special Problems in Instruction. (1 to 3). (351)**
Individual investigation in the area of instruction. **PREREQUISITE:** experience as a teacher or satisfactory evidence of being qualified to benefit from such a course.
- 4011. History of Education. (3). (451)**
This course traces through European history some of the more important educational problems of modern times as they have been affected by the social and political facts of history, by the contributions of some of the leading education theorists, and by institutional practices.
- 4012. History of Education in the United States. (3). (452)**
This course aims to trace, describe, and evaluate the development and growth of educational practices, institutions, and theories in the United States from the colonial period to the present.
- 4021. Philosophy of Education. (3). (453)**
A guide to the philosophical treatment of educational problems, designed to develop in the student some facility in critical and systematic thinking.
- 4031. Educational Sociology. (3). (456)**
Group behavior in the educational process; sociological factors involved in the interaction of pupils, teachers, administrators, and community.
- 4112. The Psychology of Adolescence. (3). (472)**
A study of the characteristics of adolescence that should be taken into account in the planning and teaching of secondary school courses, in the supervision of extra-class activities, and in guiding and counseling.
- 4131. Mental Hygiene and the School. (3). (476)**
Guidance in the teacher's own personality development and a study of the mental hygiene of the child as affected by his past and present environment.
- 4242. The Teaching of Developmental Reading. (3). (446)**
(formerly Improving the Teaching of Reading)
Theoretical background for developmental reading instruction, and practical consideration of methods and materials designed for teaching sequential reading skills in the primary and intermediate grades. **PREREQUISITES:** Education 3241 or classroom experience.
- 4245. The Teaching of Children's Literature in the Elementary School. (3). (445)**
A course designed to improve the methods of teaching children's literature in the elementary school, including units on story telling, dramatization, choral speech work, and the correlation of literature with the content subjects.
- 4252. The Teaching of Modern Mathematics in the Elementary School (Grades 1-8). (3). (443)**
An advanced course acquainting prospective and experienced teachers with the mathematical processes required of the elementary school child and the reasons why certain methods are used.
- 4262. The Teaching of Natural Science in the Elementary School. (3). (442)**
An advanced course in the study of the natural environment as a child would view it, including a survey of suitable equipment and materials

for the elementary classroom and limited experience as carrying on experiments at the child's level.

- 4301. Audio-Visual Aids to Teaching. (3). (466)**
Effectiveness and utilization of audio-visual materials in the school program; technical and administrative problems of integrating audio-visuals into the school curriculum. Opportunities will be provided to develop skills in the use of materials and equipment.
- 4306. Educational Methods for Adult Education. (3).**
This course places emphasis on trends, instructional and resource materials, and instructional techniques used in adult educational programs
- 4344. The Teaching of Reading in the Secondary Schools. (3).**
A course designed for teachers of content subjects at the secondary level, exploring methods, materials, and organizational patterns by which reading skills can be developed and improved in the secondary schools. **PREREQUISITES:** Education 4441 or teaching experience.
- 4421. Curriculum Problems and Trends in the Elementary School. (3). (462)**
This course deals with general educational objectives and means of achieving them; the roles of the various school subjects and their interrelationship; and the organization and use of units of work in the core curriculum.
- 4441. Curriculum Problems and Trends in the Secondary School. (3). (461)**
This course is designed to afford some help in the clarification of secondary school educational purposes and in determination of appropriate learning activities; it deals with the functional teaching objectives, ways of obtaining these objectives, methods of establishing relationships among the school subjects, developing the core curriculum, and the organization and use of units of work.
- 4511. Educational Tests, Measurements, and Practicum Applications I. (3).**
The principles underlying the construction of objective tests and the problems relating to the rise and interpretation of school measurements by teachers and administrators; practice in the construction of new-type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements. **PREREQUISITE:** Restricted to selected students.
- 4512. Educational Tests, Measurements, and Practicum Applications II. (3).**
The course includes interpretations of reliability and validity; standardization techniques; and applications of instrumentation procedures. The course content will be used in the research practicum. **PREREQUISITE:** Education 4511, and restricted to selected students.
- 4541. Introduction to Educational Statistics and Practicum Applications I. (3).**
This course deals with techniques used in educational research. The course contains the development of skills dealing with mathematical probability, frequency functions, moments, and measures of dispersion. Applications of course content will be coordinated with the research seminar. **PREREQUISITE:** Restricted to selected students.
- 4542. Introduction to Educational Statistics and Practicum Applications II. (3).**

The course includes the use of statistics in research designs, the problem of replicability, and the methodology used in proposing and reporting research. The course will be directed toward the development of competence in statistical applications. **PREREQUISITE:** Education 4541, and restricted to selected students.

- 4611. Procedures, Administration, and Organization of Guidance Services in Schools. (3). (471)**
 Historical background and growth of the guidance movement; sociological, psychological, and educational foundations; functions, scope, organization and administration of guidance services; duties and responsibilities of administrators, teachers, and specialists in guidance programs.
- 4691. Supervised Practicum in Counseling. (3). (479)**
 Classroom instruction and practical experience to prepare upper-classmen to serve as counselors in dormitory situations. **PREREQUISITE:** Consent of the Dean of Women.
- 4701. Workshop in the Improvement of Instruction. (3). (431)**
 This course is designed to assist both in-service and prospective teachers to improve the instruction-learning program; attention is given to the purposes of education, classroom learning, motivation of learning, utilization of materials, evaluation of teaching and learning, etc., and to the application of these elements in the several instructional areas of the elementary school and in the particular subject areas of the secondary school.
- 4721. Workshop for Teachers in the Elementary School. (3 to 6). (429)**
 A course designed to meet the needs of in-service teachers by offering an opportunity to work cooperatively on problems which are real to teaching situations and which meet the needs of the individual. **PREREQUISITE:** teaching experience and permission of the director of the workshop.
- 4741. Materials and Methods of Teaching High School ——. (3). (492)**
 A workshop in teaching methods in a specified endorsement area.
- 4751. Workshop in the Reading Program. (3 to 6). (448)**
 Through the media of group study, discussion, demonstrations, directed observation, and laboratory work, participants will formulate plans for reading programs, including content, methods and techniques, materials, and evaluative criteria.
- 4752. Institute for the Improvement of Reading Instruction I. (3).**
 This course is designed to help teachers be more efficient and effective teachers of reading and better teachers in content areas that depend heavily on reading skills by building a deeper understanding of the developmental reading process and making the teacher a more able classroom-diagnostician, and increasing competency in teaching. **PREREQUISITE:** Restricted to selected students.
- 4753. Institute for the Improvement of Reading Instruction II. (3).**
 Continuation of Education 4752. **PREREQUISITE:** Education 4752, and restricted to selected students.
- 4761. Aerospace Education in Schools. (3). (435)**
 The purpose of this course is to provide teachers with aerospace

knowledge and experiences and ways of utilizing this knowledge and experience in the classroom.

4771. Workshop in the Administration of Guidance Services. (3). (432)

This course is designed to assist in-service and prospective teachers and administrators in providing more effective guidance services in grades 1 through 12; particular attention will be given to the planning, organizing, and evaluating of such services as inventory, information, counseling, placement, and follow-up.

4791. Materials and Methods of Teaching High School ———. (3). (491)

An advanced course in a specified endorsement area, partly taught by means of televised instruction.

***4811. Directed Student Teaching in the Kindergarten. (3 to 6). (423)**

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

***4821. Directed Student Teaching in the Elementary School. (3 to 9). (425)**

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

***4822. Directed Student Teaching in the Elementary School. (3 to 6). (426)**

For the student who has completed six semester hours or less of student teaching in the elementary school and desires some additional experience.

***4841. Directed Student Teaching in the Secondary School. (3 to 9). (415)**

Observation of the growth and development of pupils and of methods of teaching; participation in school activities, culminating in assuming responsibility for teaching entire groups.

***4842. Directed Student Teaching in the Secondary School. (3 to 6). (416)**

For the student who has completed six semester hours or less of student teaching on the secondary level and desires some additional experience.

*For detailed information concerning the requirements for admission to the student teaching program, see page 155.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

5461. The Pupil Activity Program. (3). (S-566)

A study of current philosophy and practice in regard to responsibilities of teachers, supervisors, and administrators for those phases of educational practice which are essential for the educational program but are not considered as part of general classroom procedure.

5511. Measurement and Evaluation. (3). (S-553)

The principles underlying the construction of objective tests and the problems relating to the use and interpretation of school measurements by teachers and administrators; practice in the construction

of new-type and essay tests, and in the elements of statistical procedure necessary for the interpretation of school measurements.

GRADUATE COURSES IN EDUCATION

(For full details of the graduate program, see the *Bulletin of The Graduate School*.)

LIBRARY SERVICE

- 3111. Books and Related Library Materials for Children. (3). (321)**
Primarily a reading course based on materials suitable for elementary school children: leisure-time interests and curricular needs; criteria for evaluating books and related materials such as magazines, phonograph records, radio programs, and films; aids used in their selection; types of literary and informational books, authors, illustrators, and publishers; story-telling and other devices for encouraging reading.
- 3121. Books and Related Library Materials for Young People and Adults. (3). (322)**
This course is presented in the same manner as Library Service 321, but is adapted to materials on the junior and senior high school levels; attention is also given to adult books to enable librarians to work more effectively with faculty and community groups.
- 3131. Reference Materials. (3). (323)**
A study of reference materials useful in various areas of the elementary and secondary school curriculum; basic reference materials in every general field are studied, thus making the course desirable for teachers as well as librarians; practice in handling reference questions.
- 4231. Organization of Materials. (3). (411)**
Instruction and practice in simplified procedures for acquisition, preparation, organization, and circulation of books and related library materials.
- 4232. Cataloging and Classification. (3). (412)**
An introduction to the principles of classification of books; simplified techniques of cataloging books and other materials by the abridged Dewey decimal system; the use of printed cards.
- 4331. School Library Administration. (3). (421)**
The place of the library in the instructional and guidance program of the school and the philosophy and purposes of libraries and librarianship, including such problems as standards and evaluation, public relations and publicity, support, housing and equipment, training of assistants, and library-study hall relationships; field trips to different types of libraries.

GRADUATE COURSES IN LIBRARY SERVICE

(For details of the graduate program, see the *Bulletin of The Graduate School*.)

SPECIAL EDUCATION

- 4151. Education of Exceptional Children. (3). (480)**
A survey course which deals with the general problems involved in the education of exceptional children.
- 4152. Working with Parents of Exceptional Children. (3).**
This course is designed to teach the techniques which an educator might use in communicating with parents of exceptional children. It covers various means of interpreting school programs and handicapping conditions to parents in order to get maximum home reinforcement of the attitudes, skills and knowledge taught in school.

- 4162. Education of the Brain-Injured and Cerebral Palsied Child. (3). (482)**
A study of the neurological mechanisms; the types of aphasia and their educational implications and adjustments; the types of cerebral palsy and their educational implications and remedies by use of special methods and materials; other physiological impairments (such as encephalitis) frequently encountered by teachers of special education; an investigation of the most satisfactory educational approaches to the rectification of these conditions.
- 4163. Introduction to Mental Retardation. (3).**
A study of the historical treatment of the mentally retarded as well as etiology and characteristics of the mentally retarded. Methods of diagnosing, placing and working with mentally retarded pupils will be covered from the viewpoint of an inter-disciplinary approach.
- 4164. Curriculum Development and Techniques of Teaching Elementary Educable Mentally Retarded Children. (3).**
This course is designed to give background information in curriculum approaches that have been used in teaching mentally retarded. There is a stress placed on the principles of curriculum development in order to encourage the coordination which is so important in developing a sequentially-related curriculum at the pre-school, primary, and intermediate levels. The approach advocated in this course will be centered around the construction and teaching of experience-centered units.
- 4165. Curriculum Development and Techniques of Teaching Secondary Educable Mentally Retarded Children. (3).**
A course stressing the development of an experience-centered unit approach to teaching educable mentally retarded children at the junior high and senior high levels. Vocational assessment, working with other disciplines, personal development and strengthening deficiencies will be emphasized in the curriculum development.
- 4166. Programing for Trainable Mentally Retarded Children. (3).**
This course covers diagnosis, classification, development of teaching materials, and techniques as well as working with community organizations in relation to public school, private school, community center or institutional program for trainable mentally retarded children.
- 4171. Education of Hospitalized and Homebound Children. (3). (483)**
Orientation to the general and specific problems of the hospitalized and homebound child.
- 4172. Educational and Medical Aspects of Crippling and Special Health Conditions. (3). (484)**
A detailed study of the various types of physically disabling conditions (poliomyelitis, cleft palate, arthritis, measles, and other commonly injurious conditions) which cause either temporary or permanent decreases in educational proficiency; special methods of instruction and suitable adaptations of materials for such afflicted children within the framework of the public school organization.
- 4173. Social Case Work in Education. (3). (485)**
An introductory course designed to acquaint the student with the concepts and principles underlying social case work.
- 4174. Supervised Clinical Training in Educational Therapy. (63). (478)**
Practical application of educational activities in the rehabilitation of patients with neuropsychiatric, orthopedic, neurological cardiac, pulmonary, and other general disabilities; included are such procedures

as Braille, speech therapy, general educational development, literary training, and other vocational subjects.

4175. Principles and Procedures of Rehabilitation. (3).

A panorama of the principles and procedures of rehabilitation necessary for developing and coordinating community resources for the disabled.

4181. Methods and Materials for Teaching

Visually Handicapped Children. (3).

(487)

A course primarily designed for teachers of the partially-seeing and blind within the framework of public schools, consisting of study in the growth and development of visual imbalance, and the environment and educational implications of visual problems; the historical background of special programs in the education of the visually handicapped, and the adaptations of educational methods and materials to the teaching of such handicapped children.

4182. Introduction to the Teaching of Braille. (3).

(488)

A course designed to give the basic fundamentals in Braille instruction, including the introduction of equipment for Braille writing, development of skill in the use of such equipment, the history and development of Braille and other instructional procedures for the blind, and mastery of the Nemeth Code of Mathematics, three-dimensional bulletin boards and equipment, and practicum in the use of these materials.

4183. Advanced Braille. (3).

(489)

A course designed to complete the proficiency in the use of Braille writing by teachers of visually handicapped children. **PREREQUISITE:** Special Education 4182 or equivalent.

4192. Education of the Acoustically Handicapped Child. (3).

A course which emphasizes methods of teaching content subjects to deaf and hard-of-hearing children. The utilization of visual and auditory aids is included while special recognition is given the integration of the language arts with instruction of content materials.

4781. Workshop for Teaching Perceptually

Handicapped Children. (3).

(439)

A workshop of teacher-training in the area of perceptually handicapped children, (brain-injured, non-retarded), who demonstrate a learning and/or behavioral disorder due to a minor or moderate neurological impairment.

4881. Student Teaching with the Educable

Mentally Retarded. (3).

(427)

Orientation, observation, and teaching with mentally retarded pupils. **PREREQUISITE:** Education 4841 or 4821.

4882. Student Teaching with Pupils who have

Crippling and Special Health Conditions. (3).

(428)

Orientation, observation, and teaching with pupils who have crippling and special health conditions.

PREREQUISITE: Education 4841 or 4821.

4883. Student Teaching with Trainable Mentally Retarded. (3 or 6).

Orientation, observation, and teaching with trainable mentally retarded pupils. **PREREQUISITE:** Special Education 4151, 4163, and 4166.

GRADUATE COURSES IN SPECIAL EDUCATION

(Most of the special education courses described above may be taken for graduate credit; see the Bulletin of The Graduate School.)

DISTRIBUTIVE EDUCATION

PROFESSOR C. EDWIN PEARSON, *Chairman*
Room 401, The School of Education Building

The Department of Distributive Education offers a major and a minor to prepare teacher-coordinators for vocational marketing programs in high schools, technical institutes and junior colleges. The requirements are listed on page 160.

4610. Organization and Operation of Distributive Education Programs. (3).

A study of the background and development of distributive education in the United States; Federal and State legislation; curriculum implementation; establishing, evaluating, reporting and improving programs.

4630. Materials and Methods in Distributive Education. (3).

The instructional materials and techniques used in high school and post-high school Distributive Education classes.

5640. Techniques of Coordination in Vocational Education. (3).

Selecting training agencies; developing job analyses; selecting and briefing the training supervisor; selecting and working with advisory committees; utilizing other community resources. **PREREQUISITES:** D.E. 4610, 4630 or consent of instructor.)

5650. Basic Problems in Distributive Education. (3).

A study of current trends and problems related to distributive education; viewpoints of leaders in the field; special attention to problems of students enrolled.

5660. Organizing and Teaching Adult Distributive Education. (3).

A study of the techniques of working with trade associations, employment services, manpower programs, itinerant instructors and the unique features of planning, organizing, promoting, teaching and evaluating balanced continuing education programs for distributive occupations.

GRADUATE COURSES IN DISTRIBUTIVE EDUCATION

(For details of the graduate program, see the Bulletin of The Graduate School.)

DRAMA

(See SPEECH AND DRAMA)

ECONOMICS AND FINANCE

PROFESSOR FESTUS JUSTIN VISER, *Chairman*
Room 306, The School of Business Administration Building

Requirements for the majors and minors in economics and in finance for the Bachelor of Business Administration degree are listed on page 144. Requirements for the major and minor in economics for the bachelor's degree in The School of Arts and Sciences are listed on page 130.

- 2110. Principles of Economics I. (3). (211)**
An introduction to economic concepts and terminology and to the fundamental principles underlying the production, exchange, distribution, and consumption of income and wealth, together with the application of those principles to major contemporary problems. Attention is given to both the neo-classical and the national income methods of economic analysis. **PREREQUISITE:** 21 hours of college work, including one semester of college math.
- 2120. Principles of Economics II. (3). (212)**
A continuation of Economics 2110. **PREREQUISITE:** Economics 2110.
- 3110. Economics of Business Enterprise. (3). (312)**
An attempt to develop an understanding of the economic reasoning underlying managerial decision-making. Economic analytical techniques are applied to profit, competition, product policy, demand and cost conditions, pricing policies, and capital budgeting. Both semesters. **PREREQUISITE:** Economics 2120.
- 3210. Labor Economics. (3). (321)**
An introductory course, dealing with the history and development of the labor movement, the institutional aspects of labor organization, the principles and theories implicit in labor policies, and the basic structure of labor law. Both semesters. **PREREQUISITE:** Economics 2120.
- 3330. Economics of Consumption. (3). (313)**
Analysis of the role of consumption in the functioning of an economic system. Topics include alternative explanations of consumer motivation and empirical evaluations of consumer behavior. Spring semester. **PREREQUISITE:** Economics 2120.
- 3410. Economic Development of the United States. (3). (311)**
Analysis of economic growth of the American economy in general and of the problems of economic growth in the South in particular. Emphasis is placed on the factors instrumental in that growth in the various segments of the economy. **PREREQUISITE:** Economics 2120.
- 3510. Economics of Transportation. (3). (304)**
Development of American transportation system—waterways, highways, railways, and air; characteristics of modern transportation services; rates and rate making; public aid and regulation. **PREREQUISITE:** Economics 2120.
- 3610. Money and Banking. (3). (361)**
Monetary and banking history of leading countries with special emphasis on the theory of money and banking in the United States, deposit and earning operations of individual banks, interbank, and central bank relations. Both semesters. **PREREQUISITE:** Economics 2120.
- 3710. Investments. (3). (462)**
The principles of investment in stocks and bonds and their application to specific classes of investments. Both semesters. **PREREQUISITE:** Accounting 2020.
- 4120. Business Cycles and Forecasting. (3). (414)**
Cyclical fluctuations examined from the standpoint of definition, theoretical explanation, measurement and quantitative evaluation, secular change implications, and basic forecasting techniques. Both

semesters. PREREQUISITE: Economics 3610 and Management 2711.

4130. Industrial Organization and Control. (3). (491)

A critical study of the major forms of industrial organization and the social and managerial implications of each. The several approaches to legal and legislative control: tax laws, commission regulation, anti-monopoly legislation. The impact of each on industrial operating policy. Both semesters. PREREQUISITE: Economics 2120.

4140. Business and Economic Research. (3).

A study of basic research techniques and their application to business and economic problems. Attention is given to both primary-source and secondary-source study approaches. A critical evaluation of selected sample studies is made. Spring semester. PREREQUISITE: Management 3711.

4310. Microeconomic Theory. (3). (413)

An intermediate examination of price theory and distribution theory. Stress is placed on the market mechanism as a device for resource allocation, with attention given to the uses of basic microeconomic concepts in the analysis of economic problems and in the formulation of economic policy. Both semesters. PREREQUISITE: Economics 2120.

4320. Macroeconomic Theory. (3). (492)

An intermediate examination of the elements of aggregate theory, with emphasis given to social income accounting and to functional relationships between important aggregate economic variables. Attention is given to forecasting and social policy implications. Both semesters. PREREQUISITE: Economics 2120.

4340. Comparative Economic Systems. (3).

An analytical study of the theoretical framework underlying major alternative economic systems—capitalism, socialism, communism, fascism—with the U.S., Sweden, the U.K., the U.S.S.R., and Spain used as examples. Attention is also directed to problems and difficulties associated with the integration of systems. Fall semester. PREREQUISITE: Economics 2120.

4350. International Economics. (3). (493)

A historical approach to the theory of international trade, with consideration given to the techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence. Fall semester. PREREQUISITE: Economics 3610.

4360. Econometrics I. (3).

A review of the major quantitative methods, including basic probability concepts, necessary for understanding and using econometric models. An introduction to the basic concepts of econometrics, with more simple models conceptualized and computed as a means of illustrating econometric technique. Fall semester. PREREQUISITE: Management 3711 and a minimum of one semester of college mathematics.

4370. Econometrics II. (3).

An examination of the basic theory of the stochastic variable and of its relationship to the econometric model. A study of how the simple model can be expanded to become a useful forecasting and analytical device. Spring semester. PREREQUISITE: Economics 4360.

4410. Development of Economic Thought. (3). (411)

A critical study of the historical development of economic thought. Attention is focused primarily on the emergence of Classical and Neoclassical thought, the several dissident schools of thought, and twentieth-century economic thought. Fall semester. PREREQUISITE: Economics 2120.

4610. Central Banking and Monetary Policy. (3). (formerly Money and Banking II)

A critical examination of the history, economic functions, and policies of central banks. Analysis of the role of monetary policy in achieving predetermined objectives, with emphasis on the interrelationships of monetary policy, central banking, and the financial markets. Spring semester. PREREQUISITE: Economics 3610.

4710. Financial Markets. (3).

A survey of the important capital funds markets, the institutions and characteristics peculiar to them. The sources of supply and of demand for funds in each market, and the complex interrelations between the several markets, are carefully analyzed. Both semesters. PREREQUISITE: Economics 3610.

4720. Public Finance. (3). (451)

The theory and practice of government expenditure, revenue, and debt, and the problem of integrating them into meaningful fiscal policy. Alternative forms of taxation are analyzed, especially from the standpoint of economic effects. Fall semester. PREREQUISITE: Economics 2120.

4750. State and Local Finance. (3).

Fiscal operations at state and local government levels in the United States. Attention is given to state and local government tax structures particularly, with special emphasis on property tax assessment and administration. Also a consideration of the fiscal relations of intergovernmental units, their expenditure elements, debt policy, budgeting, and financial administration. Spring semester. PREREQUISITE: Economics 4720.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

5350. International Finance. (3).

A study of international capital movements, long term and short term in terms of the shifting trade flows and the changing world conditions that affect them. Attention is directed to the instruments and institutions of international investment as well as to their domestic economic and monetary impact. Spring semester. PREREQUISITE: Economics 4350 and permission of the instructor.

5410. Seminar in Economic Thought. (3). (S-511)

Individual studies in economic thought are pursued. The student is required to select one of the more recent economic thought systems—Marxism, Neo-Classicism, Institutionalism, Keynesianism, Neo-Keynesianism—for intensive critical analysis. Spring semester. PREREQUISITE: Economics 4410 and permission of the instructor.

5430. Seminar in Economic Analysis. (3).

An examination of some of the more recently developed techniques of economic analysis—including input-output analysis, linear programming, flow-of-funds analysis, operations research, econometric analysis. **PREREQUISITE:** Economics 4370, and permission of the instructor.

5440. Seminar in Public Policy and Labor Relations. (3).

Research and discussion into public policy issues in labor-management relations. Attention is focused particularly on the evaluation and current status of the institutions, agencies, and techniques of government regulation. Spring semester. **PREREQUISITE:** Economics 3210 and consent of the instructor.

5710. Seminar in Investment Planning. (3).

A study of the objectives of investment management with the emphasis on investments by individuals rather than by institutions. A study of risks as the principal elements involved in making investment decisions; the analysis of particular industries, companies, and securities involved in the selection of portfolio securities. Fall semester. **PREREQUISITE:** Economics 4710.

GRADUATE COURSES IN ECONOMICS AND FINANCE

(Some of the courses described in the preceding section may be taken for graduate credit with the approval of the department chairman. For further details of the graduate program, see the Bulletin of The Graduate School.)

EDUCATION

(See CURRICULUM AND INSTRUCTION)

EDUCATIONAL ADMINISTRATION AND SUPERVISION

PROFESSOR ELLERY EARL CRADER, *Chairman*
Room 409, Education Building

The Department of Educational Administration and Supervision does not offer a complete program at the undergraduate level; courses listed below are available to upper-division undergraduate students.

4110. Elementary School Administration. (3). (486)

A study of the major aims of the elementary school; planning the daily program through integration and related subjects; learning to keep and interpret various types of records and reports; the importance of proper teacher-pupil, teacher-teacher, teacher-administrator, and teacher-parent relationships; special emphasis on the P-TA program in Tennessee.

4400. School and Community Relationships. (3). (411)

The relationship of the school to community agencies concerned with health and safety, government, religion, occupations, extension services, children's organizations, adult education, cultural activities, cooperative movements, etc.; relationship of the community to such school activities as attendance, athletics, lunch, libraries, extra-curricular programs, home study, records and reports, guidance, etc.

(The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)

5150. High School Administration. (3). (S584)

Modern practices in organizing and administering secondary schools; types of high schools; selection and assignment of staff; program of studies; records; management of buildings and grounds; pupil personnel; guidance; selection, retention, and improvement of teachers; and interpreting the school to the public.

**GRADUATE COURSES IN EDUCATIONAL
ADMINISTRATION AND SUPERVISION**

For details see the Bulletin of The Graduate School.

ENGINEERING AND APPLIED SCIENCE

FREDERIC H. KELLOGG, *Dean*
Room 215, The School of Education Building

Requirements for degrees in engineering and applied sciences are listed on page 163.

2011. Statics. (3).

Analysis of force systems by means of vector algebra; two- and three-dimensional systems; friction; centroids and moment of inertia. **PREREQUISITE:** Physics 2511. **COREQUISITE:** Mathematics 2321.

Three lecture hours per week.

2012. Mechanics of Materials. (4).

Analysis of stress and strain of deformable solids; tension, compression, torsion, flexure, combined stresses; mechanical properties. **PREREQUISITE:** EAS 2011.

Three lecture, three laboratory hours per week.

3001. Basic Electrical Engineering I. (4).

Fundamental properties of electrical circuits; basic concepts and circuit elements; analysis methods and network theorems; sinusoidal steady-state response; introduction to transients. **PREREQUISITE:** Physics 2512, **COREQUISITE:** Mathematics 3391.

Three lecture, three laboratory hours per week.

3002. Basic Electrical Engineering II. (4).

A study of active vacuum, gas and solid state devices as elements of electric circuits; linear representation and operation. **PREREQUISITE:** EAS 3001.

Three lecture, three laboratory hours per week.

3011. Dynamics. (3).

Kinematics and kinetics of particles and rigid bodies; work and energy; impulse and momentum; introduction to mechanical vibrations. **PREREQUISITE:** EAS 2011. **COREQUISITE:** Mathematics 3391.

Three lecture hours per week.

4001. Energy Conversion I. (4).

Energy conversion by electromechanical methods, energy relations in

singly and multiply excited magnetic systems, dynamic equations of magnetic systems, transformers and D. C. machines. PREREQUISITE: EAS 3001.

Three lecture, three laboratory hours per week.

4011. Mechanics of Fluids. (4).

Statics, kinematics, and dynamics of fluids; applications to measuring properties of water and air flows. PREREQUISITE: EAS 3011.

Three lecture, three laboratory hours per week.

4021. Engineering Thermodynamics. (3).

First, second, and third laws. PREREQUISITE: EAS 3011.

Three lecture hours per week.

4031. Engineering Statistics. (3).

Probability and statistical inference; applications to engineering and industrial problems; introduction to quality control and design of experiments. PREREQUISITE: Mathematics 2322.

Three lecture hours per week.

4061. Materials Science I. (4).

Structure and properties of engineering material using solid state physics and crystallography; elements, structure, alloys, mechanical, electrical and thermal properties. PREREQUISITES: Physics 2512, EAS 2012.

Three lecture, three laboratory hours per week.

4062. Materials Science II. (4).

Continuation of Materials Science I. PREREQUISITE: EAS 4061.

Three lecture, three laboratory hours per week.

4111. Field Measurements. (4).

Graphical analysis; principles of surveying; topography; earthwork calculations; alignment of curves; error analysis. PREREQUISITE: Mathematics 3711.

Two lecture, six laboratory hours per week.

4112. Structural Analysis I. (4).

Statically determinate structural systems; analytical and graphical solutions; introduction to statically indeterminate structures. PREREQUISITES: EAS 4111 and 2012.

Three lecture, three laboratory hours per week.

4211. Electromagnetic Field Theory I. (4).

Fundamental laws of electric and magnetic fields in vector form; fields in dielectric and magnetic media; introduction to time varying fields; introduction to graphical analysis. PREREQUISITE: EAS 3001.

Three lecture, three laboratory hours per week.

4212. Circuit Analysis. (4).

Continuation of EAS 3001. Resonance, impedance and admittance functions, network theorems and analysis, the complex frequency plane, balanced polyphase circuits, magnetic coupling and application of Fourier analysis to electrical circuits. PREREQUISITE: EAS 3001.

Three lecture, three laboratory hours per week.

4311. Principles of Design. (4).

Advanced spatial relationships; intersections of plane, curved, and warped surfaces; working drawings; tolerances; nomographs. PREREQUISITE: EAS 3711.

Two lecture, six laboratory hours per week.

4312. Production Analysis. (4).

Machines, tools and processes used in modern production, project work. PREREQUISITE: EAS 2012.

Three lecture, three laboratory hours per week.

(The following courses are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

5101. Soil Mechanics. (3).

Physico-chemical basis of soil structure; identification and classification; permeability; compressibility; strength; applications. PREREQUISITE: EAS 4061.

Two lecture, three laboratory hours per week.

5102. Applied Soil Mechanics. (4).

Applications of theory to practical design of building foundations, retaining walls, hydraulic structures and machine foundations. PREREQUISITE: EAS 5101.

Three lecture, three laboratory hours per week.

5111. Structural Design in Metals. (4).

Current design techniques using metallic structural members; critical appraisal of code requirements. PREREQUISITE: EAS 4112.

Three lecture, three laboratory hours per week.

5112. Structural Design in Non-metals. (4).

Current design techniques using non-metallic structural members; critical appraisal of code requirements. PREREQUISITE: EAS 4112.

Three lecture, three laboratory hours per week.

5121. Environmental Engineering I. (3).

Three lecture hours per week.

5122. Environmental Engineering II. (3).

Three lecture hours per week.

5131. Structural Analysis II. (3).

Analytical solutions for statically indeterminate structures. PREREQUISITE: EAS 4112.

Three lecture hours per week.

5201. Electronics. (4).

Power amplifiers; feedback amplifiers; oscillators; modulation and detection; rectifiers; transistors; gas tubes. PREREQUISITE: EAS 3002.

Three lecture, three laboratory hours per week.

5202. Pulse and Digital Circuits. (3).

Timing, scanning, trigger and pulse circuits; video and broadband R-F amplifiers; generation, detection, transmission and radiation of V-H-F and U-H-F energy. PREREQUISITE: EAS 5201.

Three lecture hours per week.

5211. Energy Conversion II. (4).

Continuation of EAS 4001. Theory and analysis of synchronous machines, polyphase induction machines and fractional horsepower A. C. motors. PREREQUISITE: EAS 4001.

Three lecture, three laboratory hours per week.

5212. Servomechanisms. (4).

General equations of physical linear systems and their transfer functions. Transient analysis and stability of servo systems. The Bode plot,

Nichols chart, Nyquist plot, Routh-Hurwitz criterion, root locus method and introduction to compensation techniques. PREREQUISITE: EAS 5211.

Three lecture, three laboratory hours per week.

5221. Electromagnetic Field Theory II. (3).

Continuation of EAS 4211. Solutions to static field problems by graphical and numerical methods; time varying fields, simple solutions to the wave equation and applications. PREREQUISITE: EAS 4211.

Three lecture hours per week.

5222. Molecular Electronics. (3).

Fundamental particles; Quantum concepts; statistics; crystal structure; thermal, dielectric, magnetic and optical properties of solids; solid state devices. PREREQUISITES: EAS 4061 and EAS 4211.

5231. Communication Theory. (3).

Frequency and time domain. Modulation, random signal theory; autocorrelation; basic information theory, noise, communication systems. PREREQUISITES: EAS 4212 and EAS 4031.

Three lecture hours per week.

5301. Mechanical Design and Analysis I. (4).

Kinematic analysis and design of cams, gears and linkages; velocity; acceleration, and force-analysis; gyroscopic forces; balancing; kinematic and force-analysis (analysis by complex numbers). PREREQUISITE: EAS 3011.

Three lecture, three laboratory hours per week.

5302. Mechanical Design and Analysis II. (4).

Strength, stiffness and stability of machine parts; problems in impact, creep, thermal stresses, residual stress and fatigue applied to components; analysis of pressure vessels, rotating discs. PREREQUISITE: EAS 5301.

Three lecture, three laboratory hours per week.

5311. Thermodynamics of Fluid Flow. (3).

Thermodynamics of fluid flow including dynamic and energy relations, incompressible, compressible, adiabatic and diabatic flows. PREREQUISITES: EAS 4011 and 4021.

Three lecture hours per week.

5312. Power Generation. (3).

Applications of principles of thermodynamics, heat and mass transfer and fluid mechanics to stationary power plants; fossil and nuclear fuel characteristics, selection, handling, and system design. PREREQUISITE: EAS 5321.

Three lecture hours per week.

5321. Heat and Mass Transfer. (4).

Conduction, convection, radiation, and diffusion; transport properties and their measurements; electrical analog, heat exchangers and high speed applications. PREREQUISITE: EAS 5311.

Three lecture, three laboratory hours per week.

5322. Hydraulic - and Turbo - Machinery. (3).

Fluid mechanics principles applied to pumps and turbines; theory and performance characteristics common to all fluid dynamics machinery. PREREQUISITE: EAS 5321.

Three lecture hours per week.

5331. Mechanical Vibrations. (3).

Kinematics of harmonic and non-harmonic vibrations; system of one and several degrees of freedom, free and forced vibrations; self-excited vibrations. **PREREQUISITE:** Mathematics 3391.

Three lecture hours per week.

ENGLISH

PROFESSOR WILLIAM OSBORNE, *Chairman*
Room 342, Administration Building

Requirements for the major and minor in English are listed on page 130. All candidates for graduation at Memphis State University are required to complete English 1101, 1102, 2101, 2102, or their equivalent. These courses must be scheduled consecutively through the freshman and sophomore years, or until completed and may not be dropped from the student's course load except under very special conditions. They must be taken in sequence; no credit will be allowed on any course until all the preceding courses have been completed successfully.

1101. English Composition. (3). (111)

Training in the composition of English sentences, paragraphs, and expository essays related to elementary readings in the nature and history of the language and to exercises in formal logic.

1102. English Composition and Analysis. (3). (112)

Further training in the composition of expository essays related to study of types of literature. **PREREQUISITE:** English 1101 or equivalent.

2101. English Literature. (3). (211)

A survey of English literature from the beginning through the eighteenth century with attention to the development of forms and to the cultural context. **PREREQUISITES:** English 1101 and 1102 or the equivalent.

2102. English Literature. (3). (212)

A survey of English literature from the Romantic period to the present with continuing attention to the development of forms and to the cultural context. **PREREQUISITES:** English 1101, 1102, and 2101 or the equivalent.

NOTE: No student may enroll for an upper-division English course until he has completed satisfactorily English 1101, 1102, 2101, 2102, or the equivalent.

3211. The Medieval Period. (3).

Readings in English authors chiefly of the fourteenth and fifteenth centuries related to study of Middle English.

3212. The Renaissance. (3). (350)

A study of the poetry and prose, chiefly non-dramatic, of the sixteenth and the early seventeenth century.

3213. The Seventeenth Century. (3). (340)

Poetry and prose from Donne and Bacon through Milton studied in relation to political and intellectual events of the period.

- 3214. The Eighteenth Century. (3). (341)**
Poetry and prose from Dryden through Blake; detailed study of representative works and attention to theoretical aspects of neo-classicism and the advent of romanticism.
- 3221. The Romantic Period. (3). (342)**
The poetry of Wordsworth, Coleridge, Shelley, Keats, and Byron, with collateral readings in the prose of the period.
- 3222. Victorian Poetry. (3). (351)**
A study of major English poets writing between 1830 and 1900 with some consideration of the social, intellectual, and aesthetic interests of the period.
- 3223. Victorian Prose. (3). (352)**
A study of English prose between 1830 and 1900 with emphasis on critical and philosophical works.
- 3224. The Twentieth Century. (3). (352)**
A study of the major literary movements and techniques of English and American literature in the twentieth century.
- 3321. American Literature. (3). (301)**
A survey of American literature from the beginning through the Romantic period.
- 3322. American Literature. (3). (302)**
A survey of American literature from the advent of Realism to the present.
- 3341. The American Novel. (3). (311)**
Reading of representative American novels of the nineteenth century with consideration of their relation to English and European work and to American developments in the genre.
- 3342. The American Novel. (3). (312)**
Reading of representative American novels from 1900 to the present, with attention to relevant literary and cultural developments in Europe and America.
- 3411. World Literature. (3). (361)**
A survey of European literature in English translation from Homer through the Renaissance.
- 3412. World Literature. (3). (362)**
A survey of European literature in English translation from about 1600 to the present.
- 3441. The Continental Novel. (3). (313)**
Critical analysis and appreciation of representative novels chosen from the works of important European writers from 1850 to 1950.
- 3501. English Grammar. (3). (442)**
A brief introduction to linguistic scholarship followed by a survey of current grammatical theory, a review of English grammatical terminology, and a consideration of the relation between grammar and style.
- 3701. Theory and Practice in Literary Criticism. (3). (400)**
An introduction to theory of literature related to exercises in practical criticism.
- 4231. Chaucer. (3). (421)**
A study of Chaucer as a literary artist, including a reading of repre-

sentative works and discussion of their philosophical and social context.

4232. **Shakespeare's Tragedies.** (3). (432)
Reading of all Shakespeare's tragedies, detailed critical examination of at least five of them, and consideration of the principles governing tragedy.
4233. **Shakespeare's Comedies and Histories.** (3). (433)
A study of the best known comedies and histories.
4234. **Milton.** (3). (422)
A study of Milton's development as a literary artist, with emphasis on his poetry but with some attention to his prose.
4235. **Tennyson and Browning.** (3). (423)
A study of poems of different types by each poet with attention to his philosophy and religion and his relation to forerunners and successors.
4241. **The English Novel.** (3). (451)
Reading of major English novels from the Renaissance to the mid-nineteenth century related to study of the origin and development of the genre.
4242. **The English Novel.** (3). (452)
A study of major English novels from the mid-nineteenth century to the present with attention to developments in the genre.
4251. **English Drama.** (3). (411)
A study of the development of the genre in England from medieval times to 1642.
4252. **English Drama.** (3). (412)
A study of English drama from 1660 to the present, with attention to developments in the genre.
4321. **American Literature: Nationalism and Romanticism.** (3).
A study of selected American writers from the national and romantic periods with background readings in philosophical, political, and critical sources.
4322. **American Literature: Realism and Naturalism.** (3).
A study of selected American writers from the periods of realism and naturalism with background readings in philosophical, political, and critical sources.
4323. **Southern Literature.** (3). (470)
A study of Southern literature from its beginning to the present with emphasis on twentieth-century authors.
4351. **American Drama.** (3). (413)
The development of American drama as a literary form studied in relation to the English and European tradition and to currents in American thought.
4441. **The Short Story.** (3). (331)
Reading of European, English, and American short stories of the nineteenth and twentieth centuries related to study of the origins and development of the genre.
4461. **Biblical Literature.** (3). (380)
A study of selected books from the Old and New Testaments with emphasis on their literary value and with consideration of the place of the Bible in world literature.

- 4501. History of the English Language. (3). (441)**
A study of the historical development of English with attention to changes in sound, vocabulary, syntax, and meaning.
- 4601. Creative Writing. (3). (372)**
Discussion of technique of fiction and verse, analysis of models, and criticism of student work. **PREREQUISITE:** permission of instructor.
- 4602. Expository Writing. (3).**
Practical training in writing essays, articles and reports. Analysis of readings, with emphasis on organization, clarity, effectiveness.

GRADUATE COURSES IN ENGLISH

For course descriptions and further details of the graduate program, see the Bulletin of The Graduate School.

FINANCE

(See ECONOMICS AND FINANCE)

FRENCH

(See MODERN LANGUAGES)

GEOGRAPHY

PROFESSOR PAUL HARDEMAN SISCO, *Chairman*
Room 109, Johnson Hall

Requirements for the major and minor in geography are listed on page 131.

- 1101. Introduction to Earth Science I. (4). (111)**
An introductory study of earth-sun and earth-moon relations, the oceans and their movements, weather, and climate.
Three lecture, two laboratory hours per week.
- 1102. Introduction to Earth Science II. (4). (112)**
An introductory study of maps as a basic tool in understanding earth phenomena, landforms, the structure and composition of rocks, soils, and their capabilities.
Three lecture, two laboratory hours per week.
- 2301. A Survey of World Regions I. (3). (235)**
Regional geography of Europe, the Soviet Union, and the Middle East with emphasis on the people and their activities as related to the environment.
- 2311. A Survey of World Regions II. (3). (236)**
Regional geography of the Orient, the Pacific world, Africa, Latin America, and Anglo-America, with emphasis on the people and their activities as related to the environment.

3201. **Economic Geography: Major Basic Resources.** (3). (121)
Man's development and use of such major basic resources as land, water, forests, and minerals.
3211. **Economic Geography: Industrial and Commercial.** (3). (122)
An introductory study of manufacturing, trade, and transportation.
3302. **Africa.** (3). (335)
A survey of a low latitude continent with high contrasts in cultural and physical phenomena.
3312. **Anglo-America I.** (3). (331)
An analytical study of the cultural-physical complex in the area of the United States east of the Rockies.
3313. **Anglo-America II.** (3). (332)
An analytical study of the cultural-physical complex in the western United States, Canada, and Alaska.
3314. **Middle America.** (3). (333)
A study of the regions and resources of Mexico, Central America, and the West Indies as they relate to present and potential economic development.
3315. **South America.** (3). (334)
An analysis of the regional economies, resources, and trade in the continent, with stress upon the changing significance of the landscape as related to national and international problems.
3401. **Historical Geography of Europe.** (3). (321)
An analysis of human occupancy in Europe during selected periods, with a study of significant relationships between the physical and cultural features.
3402. **Historical Geography of the United States.** (3). (322)
A study of the geography of selected areas of the United States for sequent periods of their occupancy by the white man.
3411. **Principles of Conservation.** (3). (351)
Current problems and responsibilities relating to the conservation of soil, minerals, forests, water, wild life, and the natural beauty of the earth.
3501. **Cartography.** (3). (341)
An introductory course in (1) map projections, grids, scales, symbols, and (2) map drafting for geographical uses. Lectures and laboratory work.
3502. **Map Intelligence.** (3). (342)
An intensive investigation of charts, graphs, maps, and aerial photography as geographical tools. Lectures and laboratory work in the Johnson Hall Map Library, a depository of the United States Army Map Service for all maps and material it provides.
3511. **Photo Interpretation.** (3). (343)
A survey course dealing with the art and science of obtaining geographic information from landscape surveys by means of photography.
- *4111. **Earth Science I. The Atmosphere.** (3). (412)
An analytical study of the physical processes underlying the behavior and responses of the atmosphere and the application of this general body of knowledge to an understanding of the relationship of man to this important element of his environment.

- *4121. Earth Science II. The Earth. (3). (411)**
An analytical study of land forms, their changes, and their uses to man.
- *4122. Earth Science III. The Soil. (3). (413)**
An analytical study of soils to include their physical, chemical, and biological qualities, and their classes, uses, and measures of conservation.
- 4131. Earth Science IV. The Oceans. (3). (414)**
An analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation.
- 4304. Western Europe. (3). (431)**
A geographic analysis of the lands west of the Iron Curtain.
- 4305. The Soviet Realm. (3). (432)**
A regional analysis of the Soviet Union and its satellites.
- 4306. Asia South of the Soviet Realm. (3). (433)**
A consideration of the significance of regional differences in Japan, China, and India, and a brief survey of the remaining areas.
- 4316. The South. (3). (436)**
A specialized study of selected regions in the South with emphasis on changes and trends in the cultural-physical complex.
- 4317. Tennessee. (3). (437)**
A comparison of the human-use, political, and physical regions of the state.
- 4421. Geopolitics. (3). (422)**
An analysis of the world's political regions, with primary emphasis placed on the varied factors affecting the political importance of the principal powers and power blocs. Individual student study into selected problems is an integral part of this course.
- 4431. Urban Land Uses. (3). (461)**
A study of the allocation of land for urban uses; the adjustments and adaptations to existing physical phenomena; the patterns, functions, and forms of specific urban land areas; and some of the continuous problems of urban development and growth.
- 4432. City Planning. (3). (462)**
The fundamental principles of urban planning, basic elements of a city plan, and the necessity of continuity in planning administration.
- 4433. Urban Renewal. (3). (463)**
Changing urban land uses, first in areas which must improve or rebuild obsolete patterns, functions, and forms; and second in areas with acceptable uses, structures, and institutions which in the interest and welfare of all the people must have additional space for growth and expansion.
- 4611. Regional Field Study. (6). (441-B)**
A comparative study of selected regions of the world, including library study of the regions to be traversed, a minimum of sixteen days of study in the regions, and oral and written reports. **PRE-REQUISITE:** permission of the instructor.

*Geography 4111, 4121, 4122, and 4131 are designed to be of interest and value to students in the physical sciences as well as those in the social sciences; assignments include lectures, laboratory work, and field trips.

(The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)

5422. Political Geography. (3)

(S525)

The content and philosophy of political geography as illustrated by a broad survey of major writers in the field followed by student analysis of individual nation-states.

GRADUATE COURSES IN GEOGRAPHY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

GEOLOGY

PROFESSOR ANTHONY R. CARIANI, *Chairman*
Room 303, The School of Education Building

Requirements for the major and minor in geology are listed on page 131.

1101. Physical Geology. (4).

A study of the earth's internal composition and structure, the forces which establish the gross form of the earth's land masses and ocean basins, and the geologic processes of denudation which account for the diverse and complex detail of the earth's surface configuration.

Three lecture, two laboratory hours per week.

1201. Historical Geology. (4).

The earth's origin and geologic history as interpreted from the stratigraphic and paleontological records, emphasizing the succession of geologic and biogenetic events which have led to the present-day distribution of land and water, configuration of coastlines, topography of land surfaces and ocean basins, and form and distribution of life. **PREREQUISITE:** Geology 1101.

Three lecture, two laboratory hours per week.

2311. Crystallography and Mineralogy. (3).

Introduction to crystallography and crystal chemistry. Physio-chemical properties and identification of the important ore and rock forming minerals. **PREREQUISITES:** Geology 1101 and 1201. **PREREQUISITES OR COREQUISITES:** Chemistry 1111 and 1112.

Two lecture, two laboratory hours per week.

2312. Determinative Mineralogy. (3).

A continuation of Geology 2311, with emphasis on mineral identification. **PREREQUISITE:** Geology 2311.

Two lecture, two laboratory hours per week.

2512. Structural Geology. (3).

Rock structures; origin, criteria for recognition and solution of structural problems.

Two lecture, two laboratory hours per week.

3211. Introduction to Paleontology. (4).

The study of fossil invertebrates. **PREREQUISITES:** Geology 1101 and 1201.

Three lecture, two laboratory hours per week.

3311. Megascopic Petrology. (3).

Study of megascopic characteristics of rocks, field classification and relationships of igneous, sedimentary, and metamorphic rocks. PREREQUISITES: Geology 2311 and 2312.

Two lecture, two laboratory hours per week.

3712. Sedimentation and Stratigraphy. (3).

Principles of stratigraphy and sedimentation; interrelationships of structure, stratigraphy, and environments of deposition. PREREQUISITES: Geology 2512 and 3211.

Three lecture hours per week

4121. Optical Crystallography. (4).

The principles and methods of study of optical crystallography. The use of the polarizing microscope in the identification of minerals by the immersion method. PREREQUISITE: Geology 2311 and 2312.

Two lecture four laboratory hours per week.

4322. Microscopic Petrography. (4).

Classification, description, and thin-section study of rocks by means of the petrographic microscope. PREREQUISITE: Geology 4121.

Two lecture four laboratory hours per week.

4332. Introduction to Geochemistry. (3).

A study of the geological and chemical processes which govern or control the migration and distribution of the elements and atomic species of the earth in space and time. PREREQUISITES: Geology 2311 and 2312.

Three lecture hours per week.

4411. Micropaleontology. (3).

A study of microscopic fossils. Morphology, classification, evolution, and stratigraphic distribution of some of the more common groups. Photography and laboratory techniques in preparing microfossils for study. PREREQUISITE: Geology 3211.

Six laboratory hours per week.

4511. Economic Mineral Deposits. (3).

Origin, occurrence, and composition of metallic and non-metallic mineral deposits. PREREQUISITES: Geology 2311, 2312, and 2512.

Three lecture hours per week.

4622. Geology Field Camp. (6-8).

Mapping of the structure and lithology of a prescribed geologic area. To be offered during the summer. Course may be taken at a college field camp offered by other schools subject to approval of major adviser. PREREQUISITES: Geology 3311, 2513, and 3712.

GERMAN

(See MODERN LANGUAGES)

GREEK

(See CLASSICAL LANGUAGES)

HEALTH, PHYSICAL EDUCATION, AND RECREATION

PROFESSOR RALPH L. HATLEY, *Chairman*
Room 211, Field House

Majors and/or minors are offered in (1) health, (2) health and physical education, and (3) recreation. Requirements are listed on page 157.

CORRECTIVE AND RECREATIONAL THERAPY PROGRAMS

The University, in cooperation with Kennedy Veterans Hospital, offers programs in corrective and recreational therapy designed to prepare the student to meet civil service requirements. Physical education majors may offer either of these programs in fulfillment of the second area of endorsement required for a degree in The School of Education. For further information students should consult with the chairman of the Department of Health, Physical Education, and Recreation.

HEALTH

- 1102. Personal Health. (3). (101)**
The physiological basis of correct living, including fundamental biological facts; the psychological aspects of human behavior as they affect the individual health conduct and mental hygiene; the agents of disease and modern scientific methods of controlling them.
- 1202. Introduction to Public Health. (3). (150)**
The organization and structure of official and voluntary health agencies, international, national, state, and local, with a consideration of their aims, objectives, and principles as they are related to the nurse and teacher.
- 2102. Safety and First Aid. (3). (231)**
This course is designed to assist students in developing an understanding of the basic principles of accident prevention as applicable to the home, school and community, and techniques of administering immediate and temporary care in the event of an injury or sudden illness.
- 3102. Health Education in Schools. (3). (301)**
An analysis of the health problems of school-age children in the home, school, and community, with emphasis on improving health behavior through sound health teaching; procedures and principles involved in coordinating health instruction with other areas of the curriculum; materials and resources for health teaching.
REQUISITE: Education 2011, 2111, and 3121.
- 3202. Health Service in Schools. (3). (302)**
Methods of organizing and implementing health measures in schools and of relating them to other community agencies; techniques for determining health status through screening processes; the detection of remedial defects and follow-up for correction; the promotion of

health through environment and special health services; sanitation in the home, school and community as it affects the school child.

3306. Elementary School Health Education. (3). (303)

The school health program involving health services, healthful school living, and health instruction is considered. Content and materials suitable for an elementary school health course are stressed.

(For elementary education majors only.)

PREREQUISITES: Two of the following: Education 3241, 3261, 3271.

3402. Safety Education. (2). (321)

An orientation in the various methods, techniques and teaching devices in safety education and first aid courses with special emphasis placed on the home and leisure activities. Successful completion of this course qualifies one for the Red Cross first aid instruction certificate. **PREREQUISITES:** Health 2102 or ARC Advanced certificate.

3502. Prevention and Care of Athletic Injuries. (3). (345)

Practical and theoretical aspects of treatment of athletic injuries in an athletic training program; supplies, training table, therapeutic equipment, and techniques in conditioning and bandaging.

4302. Observation in Community Agencies. (3). (416)

An introduction to the purposes, objectives, functions, and programs of a variety of community health and welfare agencies, with opportunities to visit official and volunteer agencies. Application should be made at least 60 days before the student plans to enroll in the course. **PREREQUISITE:** permission of the chairman of the Department of Health and Physical Education.

***4502. Problems in Health Education. (1 to 3). (*434)**

Designed to afford opportunities for prospective or in-service school and other professional personnel to work individually or in groups on health education factors in the solution of practical problems. **PREREQUISITE:** permission of the instructor.

4602. Supervision and Administration in Health. (3). (450)

The functions, principles, and procedures of supervision and administration of health, with emphasis on the relationship and responsibilities of personnel in planning, promoting, improving, and evaluating the total health activities in the family-centered health services; legal and legislative aspects of health activities.

4702. Trends and Problems in Public Health. (3). (470)

A review of the historical development and current trends in professional nursing as a community service; the various needs and demands for medical care; the contribution of the professional personnel in providing for total health services and education.

4802. Group and Intergroup Hygiene. (3).

New course; number formerly assigned to "Mental Hygiene," no longer offered

Environmental sanitation and its role in the control and spread of disease.

4902. Health Statistics. (3). (480)

A study of the statistical method, including collection, analysis, and presentation of numerical data pertaining to health problems.

*Credit may be earned in only one of the following courses: Health 4502, Physical Education 4303.

GRADUATE COURSES IN HEALTH

(For details of the graduate program, see the Bulletin of The Graduate School.)

PHYSICAL EDUCATION

(For details of the physical education requirements for graduation, see page 105.)

1101. Orientation for Physical Education and Recreation Majors and Minors. (1). (111)

Fundamental movements, touch football, basketball, and speedball (for men); conditioning, volleyball, and basketball (for women). This course is required of and restricted to students majoring or minoring in physical education and/or recreation.

1---. Selected Physical Activities. (1).

Two or three semesters required of all students, the specific course number to be selected from the following list. **PREREQUISITE:** Physical Education 1001.

1101. (See description above) (111)	1261. Tap Dance (men and women) (242)
1111. Beginning Swimming (men and women) (219 & 258)	1271. Modern Dance (men and women) (243)
1121. Intermediate Swimming (men and women) (259)	1281. Modern Dance (advanced—men and women) (244)
1131. Survival Swimming (men and women) (260)	1291. Archery and Bowling (women) (245)
1141. Swimming-Lifesaving (men and women) (261)	1301. Weightlifting (men) (213)
1151. Synchronized Swimming (men and women) (266)	1311. Archery, golf, and bowling (men and women) (245)
1161. Handball (men and women) (220)	1321. Tennis and recreational games (men and women) (246)
1171. Beginning Gymnastics (men and women) (221 & 264)	1331. Outdoor Education Activities (men and women) (270)
1181. Combatives (men) (212)	1341. Four Wall Racket Sports (men and women)
1191. Fencing (men and women) (262)	1351. Square and Round Dance (men and women)
1201. Adapted Physical Education (men and women) (211 & 251)	1401. Bowling (men and women) (214)
1211. Soccer, Speedball, and Volleyball (women) (252)	1501. Tennis (men and women) (215 & 256)
1221. Fieldsports, Softball, and Track (women) (253)	1601. Golf (men and women) (216 & 257)
1231. Equitation (men and women) (263)	1701. Volleyball and Softball (men) (217)
1241. Rhythms for Elementary School (for elementary education majors) (240)	1801. Badminton (men and women) (218 & 255)
1251. Folk and Social Dance (men and women) (241)	1901. Advanced Badminton (men and women) (265)

2103. Fundamentals and Techniques of Football. (2). (281)

Fundamentals of football coaching with special emphasis on blocking, tackling, passing, punting, catching; principles of line and backfield work; playing the various positions; formation of plays, generalship, signal systems, and scouting; coaching problems; study of the rules.

2203. Fundamentals and Techniques of Basketball. (2). (282)

The theory and practice of basketball coaching, history of the game, and study of the rules; offensive and defensive systems; drills for the development of fundamental skills; training and conditioning of basketball squads.

- 2303. Fundamentals and Techniques of Track and Field. (2). (283)**
The accepted forms of starting, hurdling, distance running, pole vaulting, discus and javelin throwing, and sprinting; physical conditions affecting speed, endurance, and fatigue; and selection and preparation of contestants for track and field events; managing and officiating games and meets; study of rules.
- 2403. Fundamentals and Techniques of Baseball and Softball. (2). (284)**
The theory and practice of baseball coaching, with attention given to the coaching of the individual in base running, fielding, batting, and pitching; detailed study of each position; offensive and defensive team play; officiating; scoring; study of rules.
- 2503. History and Principles of Physical Education. (2). (299)**
A study of physical education systems and practices from the beginnings to the present time, designed to show the place of a sound physical education program in the modern school system; underlying principles common to all epochs; changes related to political and economic cycles.
- 2603. Sports Officiating. (3).**
A study of the rules, interpretations, and mechanics of officiating in football, basketball, baseball, etc.
- 3103. Materials and Methods in Team Sports for Women. (3). (327)**
Fundamentals of teaching and coaching team sports, including history, rules, skills, and teaching progressions; laboratory experience in intramural and activity classes. **PREREQUISITES:** Physical Education 1101 and 1221.
Two lecture, two laboratory hours per week.
- 3203. Techniques of Individual Sports. (2). (328)**
Study of teaching methods, instruction and participation in individual recreational sports, tumbling, mass gymnastics, and conditioning activities; means of providing facilities for these activities. **PREREQUISITES:** Physical Education 1291 and 1321.
Two lecture, two laboratory hours per week.
- 3303. Adapted Physical Education. (2). (342)**
A theory course including lectures, demonstrations, and problems of the mechanics of physical deformities and their causes; abnormalities of the spine, feet, and other postural and functional conditions; and methods of class organization.
Two lecture hours per week, plus laboratory periods to be arranged.
- 3403. Kinesiology. (2) (343)**
Analysis of bodily movements in terms of the muscular forces operating on the bones. **PREREQUISITES:** Biology 1631 and 1632.
- 3503. Rhythms and Dance. (2). (351)**
Basic theory, participation, techniques, materials, and teaching methods in rhythmic activities from grades 7 through 12. **PREREQUISITE:** Physical Education 1251.
Laboratory periods to be arranged.
- 3603. Methods and Supervision of Physical Education in the Elementary Schools. (2). (371)**
Theory of and activities for physical education in grades 1 through

9, including teaching methods, program planning, and participation in stunts, mass gymnastics, relays, informal games, team games, individual and dual sports, and mimetics; practical experience is gained through observing and directing play activities for children in the University Campus School. (For majors and minors in physical education and majors in recreation.)

Laboratory periods to be arranged.

- 3806. Physical Education for the Elementary School. (3). (361)**
Materials and methods for physical education in grades 1 through 6, including philosophy, program planning, and practical experience gained through observing and directing play activities for children in the University Campus School. (For elementary education majors only). PREREQUISITE: P. E. 1241.

Laboratory periods to be arranged.

- 4204. Tests and Measurements in Health and Physical Education. (3). (432)**

A study of the various tests in the field of health and physical education, including uses and interpretation of elementary statistical techniques.

- *4303. Problems in Physical Education. (1 to 3). (*434)**

Designed to afford opportunity for prospective or in-service school and other professional personnel to work individually or in groups on physical education factors in the solution of practical problems. PREREQUISITE: permission of the instructor.

- 4403. Supervised Clinical Training in Corrective Therapy. (6). (444)**
(formerly Clinical Practice)

Supervised clinical practice in the Department of Physical Medicine and Rehabilitation Service at the Kennedy Veterans Hospital; instruction will be given in the conditioning, ambulation, and self-care of patients with neurological, pulmonary, geriatric, neuropsychiatric, speech, spinal cord, cardiac, and other types of disabilities.

- 4503. Organization and Administration of Health and Physical Education. (3). (482)**

A study of administrative problems of health and physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of an intramural program.

GRADUATE COURSES IN PHYSICAL EDUCATION

(For details of the graduate program, see the Bulletin of The Graduate School.)

RECREATION

- 3705. Outdoor Education and Camp Leadership. (3). (372)**

The philosophy, modern trends, administration, program content and methods of leadership in camping and outdoor education activities. Field trips and outdoor camping experiences.

- 3905. Introduction To Recreation. (3).**

An understanding of the nature of the recreation experience and its importance to the individual; the influence of leisure on society and the philosophies of recreation. A study of the history and development of the recreation movement.

*Credit may be earned in only one of the following courses: Physical Education 4303, Health 4502.

- 4105. Recreational Leadership. (3). (426)**
Development of skills and techniques necessary for successful leadership in city, county, and school recreation programs.
- 4205. Supervised Clinical Training in Recreational Therapy. (6).**
Supervised clinical training in the Recreational Therapy Department of the Physical Medicine and Rehabilitation Service at the Memphis V. A. Hospital. Instruction will be given in arts and crafts, radio, television programming, social activities, adapted sports, music, allied ward and clinic activities for patients with varied illnesses and disabilities.
- 4405. Organization and Administration of Recreation. (3).**
An understanding of community organization, its philosophy, foundation and principles. An understanding of selected administrative practices that relate to successful recreational organization and administration.
- 4505. Recreation Surveys. (3).**
Observation of different types of recreational programs in action under professional leadership and supervision. Written analysis of programs and facilities in connection with course work.
- 4605. Practicum In Recreation. (6).**
Field experience providing an opportunity for practical application of classroom theory. At least 280 clock hours in professional field work in selected recreational settings according to student's particular area of emphasis.

GRADUATE COURSES IN RECREATION

(For details of the graduate program, see the Bulletin of the Graduate School.)

HEBREW

(See MODERN LANGUAGES)

HISTORY

PROFESSOR AARON M. BOOM, *Chairman*
Room 150, Administration Building

Requirements for the major and minor in history are listed on page 131. All candidates for graduation at Memphis State University are required to complete History 2601 and 2602; these courses are not open to students with fewer than 25 semester hours credit.

- 1301. The Development of World Civilization I. (3). (111)**
Especially recommended for freshmen, this course traces the forms of civilization from their ancient beginnings through the seventeenth century.
- 1302. The Development of World Civilization II. (3). (112)**
Especially recommended for freshmen, this course traces the forms

of civilization from the beginning of the eighteenth century to the present.

- 2601. The United States to 1865. (3). (221)**
A survey of the United States from the discovery to the close of the Civil War. PREREQUISITE: sophomore standing.
- 2602. The United States since 1865. (3). (222)**
A survey of the United States from the Civil War to the present. PREREQUISITE: sophomore standing.
- 3121. History of England before 1660. (3). (301)**
A survey of the development and growth of England into a nation, with attention given to constitutional progress and the achievements of the Tudor and Stuart periods. PREREQUISITE: junior standing.
- 3122. History of England since 1660. (3). (302)**
A survey of the development of England's democratic government, considering economic, social, intellectual, diplomatic, and imperial affairs. PREREQUISITE: junior standing.
- 3200. History of Spain. (3). (371)**
A survey of Spanish institutions, culture, and politics from ancient times to the present. PREREQUISITE: junior standing.
- 3211. Colonial Latin America. (3). (315)**
A survey of political, economic, social and cultural development in Latin America from the pre-conquest era to 1808. PREREQUISITE: junior standing.
- 3212. The Latin American Nations. (3). (316)**
A survey of the major political, economic, and social trends in Latin America since 1808. Emphasis is placed on Argentina, Brazil, Chile, and Mexico. PREREQUISITE: junior standing.
- 3230. History of Inter-American Relations from 1808 to the Present. (3). (372)**
A study of the principal developments in Latin American countries since 1808. PREREQUISITE: junior standing.
- 3321. History of Ancient Civilization I. (3). (311)**
A study of the Ancient Near East and Greece through the time of Alexander the Great. PREREQUISITE: History 1301.
- 3322. History of Ancient Civilization II. (3). (312)**
A study of the Hellenistic World and of the rise and fall of the Roman Empire. PREREQUISITE: History 1301.
- 3801. American Diplomatic History to 1889. (3). (331)**
A study of American diplomacy to 1889. PREREQUISITE: junior standing and History 2601 and 2602.
- 3802. American Diplomatic History since 1889. (3). (332)**
A study of American diplomacy since 1889. PREREQUISITE: junior standing and History 2601 and 2602.
- 3821. Economic History of the United States to 1865. (3). (341)**
A study of American economic development to 1865. PREREQUISITE: junior standing and History 2601.
- 3822. Economic History of the United States since 1865. (3). (342)**
A study of American economic development since 1865. PREREQUISITE: junior standing and History 2602.

- 3841. Constitutional History of the United States to 1865. (3). (343)**
A study of the formative period and the early period of operations of the United States Constitution. PREREQUISITE: junior standing and History 2601.
- 3842. Constitutional History of the United States since 1865. (3). (344)**
A study of the operation of the United States Constitution since 1865. PREREQUISITE: junior standing and History 2602.
- 3861. Social and Intellectual History of the United States to 1865. (3). (361)**
A study of the main social and intellectual trends in the United States up to 1865. PREREQUISITE: junior standing and History 2601.
- 3862. Social and Intellectual History of the United States since 1865. (3). (362)**
A study of the main social and intellectual trends in the United States since 1865. PREREQUISITE: junior standing and History 2602.
- 3871. United States Urban History. (3).**
A study of the development of American cities, including formation of local social, economic, and political institutions, and the impact of urbanization on the United States. PREREQUISITE: junior standing.
- 3900. History of Tennessee. (3). (351)**
A study of the political, economic, and social development from 1769 to 1861. PREREQUISITE: junior standing and History 2601.
- 3920. The Old South. (3). (352)**
A study of southern institutions prior to the outbreak of the Civil War. PREREQUISITE: junior standing and History 2601.
- 3930. The New South. (3). (353)**
A study of the South from the Civil War to the present. PREREQUISITE: junior standing and History 2602.
- 3940. The West. (3). (354)**
A study of the significance of the frontier in the development of the United States from the Revolutionary period to 1890. PREREQUISITE: junior standing and History 2601 and 2602.
- 4160. History of Russia before 1801. (3). (402)**
A survey of Russia from early times to the beginning of the reign of Alexander I. PREREQUISITE: junior standing.
- 4161. History of Russia from 1801 to 1917. (3).**
A survey of Russia from 1801 through the Revolution of 1917. PREREQUISITE: junior standing.
- 4240. History of Mexico. (3). (471)**
A survey of the political, economic, social, and cultural development of Mexico from ancient times to the present. PREREQUISITE: junior standing.
- 4250. History of Brazil. (3). (472)**
A survey of the political, economic, social, and cultural development of Brazil from early times to the present. PREREQUISITE: junior standing and History 3211.

4281. Africa South of the Sahara. (3).

A survey with major emphasis on the nineteenth and twentieth centuries. The age of imperialism and the impact of the West on Africa; the colonial policies of the European powers; the rise of the nationalist movements; the problems of newly independent nations; the role of African countries in world affairs. **PREREQUISITE:** junior standing.

4282. The History of North Africa. (3).

A survey with major emphasis on the nineteenth and twentieth centuries. The extension of European influence and control; the rise of nationalist movements; the role of these areas in world affairs. **PREREQUISITE:** junior standing.

4370. The Medieval World. (3). (451)

A study of the history of institutional forms beginning with the decline of the Roman Empire and ending with the beginnings of Renaissance life. **PREREQUISITE:** junior standing and History 1301 and 1302.

4380. The Renaissance World. (3). (452)

A study of the achievements and forces, political and economic, social and cultural, creative and intellectual, which made up the foundation of modern European civilization. **PREREQUISITE:** junior standing and History 1301.

4390. Europe in the Age of the Reformation. (3).

A consideration of the religious struggles, the social and intellectual milieu in the sixteenth and early seventeenth centuries. **PREREQUISITE:** junior standing.

4400. Europe in the Age of Reason. (3).

A consideration of the growth of royal absolutism, the political conflicts, the baroque synthesis, the rise of modern science, and Enlightenment thought in the seventeenth and early eighteenth centuries. **PREREQUISITE:** junior standing.

4440. The Era of the French Revolution. (3). (411)

A study of the Enlightenment, the French Revolution, and the Napoleonic era. **PREREQUISITE:** junior standing.

4450. Europe in the Nineteenth Century. (3). (412)

A study of Europe during the period 1815-1914. **PREREQUISITE:** junior standing.

4460. Europe in the Twentieth Century. (3). (413)

A study of Europe since the outbreak of World War I. **PREREQUISITE:** junior standing.

4501. Intellectual History of Europe I. (3). (481)

Especially designed to appeal to history majors, this course considers intellectual history from the twelfth-century Renaissance through the period of the Thirty Years' War. **PREREQUISITE:** History 1301 and senior standing; or History 1301, junior standing, and consent of the instructor.

4502. Intellectual History of Europe II. (3). (482)

Especially designed to appeal to history majors, this course considers intellectual history in the Enlightenment, the Romantic Era, and the Liberal Tradition. **PREREQUISITE:** History 1302 and senior standing; or History 1302, junior standing, and consent of the instructor.

4620. Colonial America, 1607-1763. (3). (421)

A study primarily of the political development and institutions of

the English Colonies in America before 1763, with some attention given to Spanish, French, and Dutch colonization. PREREQUISITE: junior standing and History 2601.

- 4630. Era of the American Revolution, 1763-1790. (3). (422)**
A study of the origins and conduct of the American Revolution, the United States under the Articles of Confederation, and the writing and ratification of the Constitution. PREREQUISITE: junior standing and History 2601.
- 4640. Early National Period, 1790-1850. (3). (423)**
A study of American history from unification until the beginnings of division. PREREQUISITE: junior standing and History 2601.
- 4660. Civil War, 1850-1865. (3). (424)**
A study of division and conflict. PREREQUISITE: junior standing and History 2601.
- 4670. Reconstruction, 1865-1877. (3). (425)**
A study of national and sectional issues following the Civil War. PREREQUISITE: junior standing and History 2601 and 2602.
- 4680. Emergence of Modern America, 1877-1914. (3). (425)**
A study of the United States from the end of Reconstruction to the outbreak of World War I. PREREQUISITE: junior standing and History 2601 and 2602.
- 4700. Recent American History, 1914-present. (3). (426)**
A study of the United States from World War I to the present. PREREQUISITE: junior standing and History 2601 and 2602.

GRADUATE COURSES IN HISTORY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

HOME ECONOMICS

ASSISTANT PROFESSOR MARY ALMA WHITAKER, *Acting Chairman*

Room 300, Manning Hall

Requirements for the major and minor in home economics are listed on page 159.

Students interested in planning a program in home economics to meet the entrance requirements established by the American Dietetics Association for postgraduate internship should consult with the department chairman.

CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS

- 1101. Personal Development and Human Relations. (3). (171)**
Individual and group adjustment, influences contributing to successful marriage and family life.
- 4101. Child Development. (3). (471)**
Development and guidance of the child to the age of six; nursery school observation.
- 4201. Family Relationships. (3).**
Courtship, marriage, and achievement of satisfaction in family life.

- 4301. Nursery School Practicum. (3). (473)**
 Participation in and direction of various nursery school activities.
PREREQUISITE: Home Economics 4101.
One conference, five laboratory hours per week.
- 4401. Nursery School Practicum. (3). (474)**
 For the student who has had or is taking Home Economics 4301 and desires additional experience.

FOODS, NUTRITION AND INSTITUTIONAL MANAGEMENT

- 2102. Food Selection and Preparation. (3). (242)**
 Principles underlying the selection and preparation of foods with an introduction to the planning and serving of meals. Open to freshmen.
One lecture, four laboratory hours per week.
- 2202. Elementary Nutrition. (3). (241)**
 Nutritive value of food, factors influencing body food requirement and health. Open to freshmen.
- 3302. Meal Preparation and Table Service. (3). (341)**
 Nutrition fundamentals in individual and family dietaries, meal planning, marketing and table service for various occasions. **PREREQUISITE:** Home Economics 2102.
One lecture, four laboratory hours per week.
- 3402. Nutrition and Diet Therapy. (3). (342)**
 Dietary problems applicable to the prevention and treatment of disease in which therapeutic diets are of major importance. **PREREQUISITE:** Home Economics 2202 and 3302.
Two lecture, two laboratory hours per week.
- 3502. Quantity Cookery. (3). (351)**
 Practical problems in preparing and serving foods for large groups. Use of standardized recipes, calculation of food costs, and use of institution equipment. **PREREQUISITE:** Home Economics 3402.
- 3602. Institutional Management and Equipment. (3). (352)**
 Observation and practice in handling problems of organization and management of quantity food service.

HOME MANAGEMENT

- 2103. Health of the Family and Home Nursing. (3). (291)**
 Building health habits, protection against illness and accidents; simple procedures in caring for the sick. Open to freshmen.
Two lecture, two laboratory hours per week.
- 4103. Home Management and Consumer Education. (3). (482)**
 Problems in management of money, time, and energy; study of consumer goods; guides to buying.
- 4203. Equipment. (3).**
 Principles underlying the construction, use, and care of household equipment.
Two lecture, two laboratory hours per week.

RELATED ARTS

- 1104. Art in Everyday Life. (3). (181)**
 A study of the art elements and art principles through an analysis of everyday objects.

- 4104. Home Furnishing. (3). (481)**
 Principles of design and color theory applied to the selection and arrangement of the house and its furnishings. **PREREQUISITE:** Home Economics 1104.
Two lecture, two laboratory hours per week.

TEXTILES AND CLOTHING

- 1105. Clothing Selection and Construction. (3). (111)**
 Standards in selecting and purchasing; construction of cotton garments to meet individual needs.
One lecture, four laboratory hours per week.
- 2205. Clothing Construction. (3). (211)**
 Fundamental principles of clothing construction, fitting and finishing garments to develop techniques in handling wool, silk, and synthetic fabrics. **PREREQUISITE:** Home Economics 1105.
One lecture, four laboratory hours per week.
- 3305. Textiles. (3). (312)**
 A study of textile fibers used for clothing and house furnishing.
Two lecture, two laboratory hours per week.
- 3405. Consumer Problems in Clothing. (3). (313)**
 A course in clothing selection and buying for men and women with emphasis on individual needs and economic problems involved.
- 3505. Tailoring. (3).**
 Selection and construction of tailored wool garments, using various tailoring techniques. **PREREQUISITES:** Home Economics 1105 and 2205.
- 3605. Draping Design. (3).**
 Dress design and construction developed through the media of draping techniques. **PREREQUISITES:** Home Economics 1105 and 2205.

INDUSTRIAL ARTS EDUCATION

PROFESSOR R. J. COLTHARP, *Chairman*
Room 100, Industrial Technology Building

Requirements for the majors and minor in Industrial Arts Education are listed on page 159.

- 2561. Constructive Design. (3).**
 Laboratory experience in three-dimensional design for both handcraft and mass production. Woods, metals, and plastics are basic media for work with both models and full-scale design. **PREREQUISITE:** Industrial Technology 2551.
- 2911. Foundations of Industrial Education. (3). (291)**
 Study of the development, objectives, and current trends of industrial arts and vocational education; required for teaching endorsement in Industrial Arts. **PREREQUISITES:** Two of the following courses: Education 2011, 2111, 3121.
- 3385. Basic Driver Education and Traffic Safety. (3). (335)**
 Critical analysis of traffic accidents, attitude factors, essential knowledge of automobile operations and traffic laws and regulations; laboratory experiences for developing driving skills. **PREREQUISITES:** Valid driver's license, two years driving experience.
Two lectures, two laboratory hours per week.

- 3551. Drafting for Teachers. (3).**
Study of specific problems of the drafting teacher, with emphasis on selection of content and activities. **PREREQUISITE:** Nine hours of drafting, with Education major or minor.
One lecture, four laboratory hours per week.
- 3621. Upholstery. (3).** (362)
Fundamentals of upholstery. **PREREQUISITE:** Industrial Technology 1611 or 3611.
One lecture, four laboratory hours per week.
- 3651. Woodwork for Teachers. (3).**
Study of problems of the woodworking teacher, with emphasis on the selection of content and activities. **PREREQUISITE:** Nine hours of woodwork, with Education major or minor.
One lecture, four laboratory hours per week.
- 3751. Metalwork for Teachers. (3).**
Study of problems of the metalwork teacher, with emphasis on the selection of content and activities. **PREREQUISITE:** Nine hours of metalwork with Education major or minor.
One lecture, four laboratory hours per week.
- 3831. Survey of Electronics. (3).**
Brief coverage of applied electronics for prospective teachers. **PREREQUISITE:** Industrial Technology 2821, with Education major or minor.
Two lecture, two laboratory hours per week.
- 4351. Clinical Practice in Manual Arts Therapy. (6).** (435)
Supervised clinical practice in the Physical Medicine and Rehabilitation Service at Kennedy Veterans Hospital. **PREREQUISITE:** Senior classification, with major in Industrial Arts Education.
- 4361. Organization of the General Shop. (3).** (436)
Study of problems dealing with the selection and organization of general shop activities. **PREREQUISITE:** Education 3384.
One lecture, four laboratory hours per week.
- 4362. General Shop Applications. (3).**
This course deals with the implementation of the philosophy of the general shop with emphasis on curriculum planning. **PREREQUISITE:** Industrial Arts Education 4361. **PREREQUISITE:** Industrial Arts Education 4361.
- 4371. Maintenance. (3).** (372)
Practices in selection and care of tools, both hand and machine. **PREREQUISITE:** Industrial Arts Education major or minor.
One lecture, four laboratory hours per week.
- 4375. Crafts for Teachers. (3).**
Study and experiences with craft materials. **PREREQUISITE:** Education major or minor, with junior classification.
One lecture, four laboratory hours per week.
- 4385. Advanced Driver Education and Traffic Safety. (3).**
Designed to give the student advanced professional preparation to meet the traffic safety needs of schools and communities. Included will be a review of relevant research as it relates to accident causation, teacher preparation, administration and supervision of driver and traffic safety education. **PREREQUISITE:** Industrial Arts Edu-

cation. **PREREQUISITE:** Industrial Arts Education 3385, or equivalent.

Two lecture, two laboratory hours per week.

4944. Problems. (See Industrial Technology 4944)

GRADUATE COURSES IN INDUSTRIAL ARTS EDUCATION

For course descriptions and further details of the graduate program, see the Bulletin of The Graduate School.

INDUSTRIAL TECHNOLOGY

PROFESSOR R. J. COLTHARP, *Chairman*
Room 100, *Industrial Technology Building*

Requirements for the majors and minors in Industrial Technology are listed on page 166.

- 1411. Introduction to Engineering. (3). (141)**
An introduction to technology in industry, with emphasis on the use of references, the slide rule, precision measuring instruments, and systems of measurement.
- 1421. Interpretation of Technical Drawing. (3). (142)**
Various types of drawing as techniques of communication.
- 1451. Introduction to Surveying. (3). (145)**
Surveying practices, calculations, and use of topographical conventions. **PREREQUISITES:** Industrial Technology 1411 and 1511.
- 1511. Engineering Graphics I. (3). (151)**
Basic drafting practices in the use of instruments, theory of projections, and working drawings.
One lecture, four laboratory hours per week.
- 1521. Engineering Graphics II. (3). (152)**
Continuation of Industrial Technology 1511, including basic space relationships of points, lines, planes, and surfaces. **PREREQUISITE:** 2 units of high school drafting, or Industrial Technology 1511.
- 1551. Architectural Design. (3).**
Drawing methods as applied to architectural practice.
Two lecture, two laboratory hours per week.
- 1611. Woodwork I. (3). (161)**
Basic woodworking processes.
One lecture, four laboratory hours per week.
- 1711. Metalwork I. (3). (171)**
Basic metalworking processes.
One lecture, four laboratory hours per week.
- 1811. Electronics Fabrication. (3).**
Construction practices of the electronics industry, including electrical drafting, correct use of tools and equipment, processes and techniques.
One lecture, four laboratory hours per week.
- 2411. Instrumentation and Testing. (3).**
Studies of testing procedures, methods, and equipment as applied to quality control. **PREREQUISITE:** Industrial Technology 1411 and 1511.
- 2431. Technical Report Writing. (3).**
Studies of fundamentals of technical report writing; emphasis is placed on the use of graphs, charts, and drawings as used in the communication of technical information. **PREREQUISITE:** Industrial Technology 1511 and English 1102.

- 2451. Construction Surveying. (3). (245)**
Study of construction layouts and site locations. **PREREQUISITES:** Industrial Technology 1451 and Mathematics 1212.
One lecture, four laboratory hours per week.
- 2511. Descriptive Geometry. (3). (251)**
Representation and space relations of points, lines, and plane intersections.
One lecture, four laboratory hours per week.
- 2531. Sheet Metal Drafting. (3). (253)**
Theory and application of principles of lofting, including parallel line, radial, and triangulation methods of development. **PREREQUISITE:** Industrial Technology 2511.
One lecture, four laboratory hours per week.
- 2551. Industrial Design. (3). (252)**
Theory and application of design and principles in industry. **PREREQUISITE:** Industrial Technology 1511 or 1551.
- 2555. Architectural Drawing I. (3).**
Planning and executing residential preliminary and working drawings, details, and specifications. **PREREQUISITE:** Industrial Technology 1551.
One lecture, four laboratory hours per week.
- 2561. Constructive Design. (3).**
Laboratory experience in three-dimensional design for both handcraft and mass production. Woods, metals, and plastics are basic media for work with both models and full-scale design. **PREREQUISITE:** Industrial Technology 2551.
One lecture, four laboratory hours per week.
- 2591. Topographical Drafting. (3).**
Study of surveying and drafting conventions as used by the civil engineer. **PREREQUISITES:** Industrial Technology 1451, 1511 and Geology 1101.
Two lectures, two laboratory hours per week.
- 2611. Woodwork II. (3). (261)**
Continuation of Industrial Technology 1611 with emphasis on turning, laminating, and bending practices. **PREREQUISITE:** 2 units of high school woodwork or Industrial Technology 1611.
One lecture, four laboratory hours per week.
- 2711. Welding. (3). (271)**
Techniques of gas, electric, and shielded arc welding. **PREREQUISITE:** 2 units of high school metalwork or Industrial Technology 1711.
One lecture, four laboratory hours per week.
- 2721. Foundry. (3). (272)**
Study and practice of casting non-ferrous metals. **PREREQUISITE:** 2 units high school woodworking or Industrial Technology 1611.
One lecture, four laboratory hours per week.
- 2811. Basic Electronics. (3). (281)**
Study of history, theory, laws and formula of electronics as related to direct and alternating current, magnetism, motors, transformers. **PREREQUISITE:** Industrial Technology 1411 and 1811.
Two lecture, two laboratory hours per week.

- 2821. Intermediate Electronics. (3). (282)**
A continuation of Industrial Technology 2811, with emphasis on vacuum tubes, power supplies, amplifiers, oscillators, and test equipment. PREREQUISITE: 2 units of high school electronics or Industrial Technology 2811.
Two lecture, two laboratory hours per week.
- 3386. Industrial Safety. (3). (437)**
Study of industrial hazards and safety procedures.
- 3401. Strength of Materials. (3).**
Analysis and study of structural materials. PREREQUISITES: Industrial Technology 1411 and Mathematics 1212.
- 3411. Engineering Materials. (3). (341)**
Study of materials.
- 3421. Manufacturing Processes. (3). (342)**
Study of manufacturing equipment and its uses.
- 3422. Manufacturing Processes. (3).**
Continuation of Industrial Technology 3421, with emphasis on abrasives and machining processes. PREREQUISITE: Industrial Technology 3421.
- 3431. Masonry Products. (3). (433)**
Study of cements, concrete, stone, and clay building materials. PREREQUISITE: Industrial Technology 3411.
Two lecture, two laboratory hours per week.
- 3451. Route Surveying. (3). (345)**
Study of surveying practices as applied to streets, roads, and highways. PREREQUISITE: Industrial Technology 1451 and Mathematics 1212.
One lecture, four laboratory hours per week.
- 3491. Building Specifications and Estimating. (3). (355)**
Study and practice of specifications, bidding procedures, and estimating. PREREQUISITE: Industrial Technology 2555.
- 3471. Structural Design. (3).**
Design of commercial and residential buildings with emphasis on uses of steel, wood, and masonry. PREREQUISITE: Industrial Technology 3401 and 3411.
- 3521. Architectural Model Making. (3).**
Continuation of Industrial Technology 2555, including pictorial representations, model building, and furnishings design. PREREQUISITE: Industrial Technology 2555.
- 3531. Mechanical Equipment in Construction. (3).**
Studies of electrical and thermal services for commercial and residential structures. PREREQUISITE: Industrial Technology 1551 or 2555.
- 3532. Mechanical Equipment in Construction. (3).**
Continuation of Industrial Technology 3531, with emphasis on the accoustical, sanitary, and water services for commercial and residential structures. PREREQUISITE: Industrial Technology 3531.
- 3571. Machine Design. (3). (357)**
Study and design of basic machine elements. PREREQUISITE: Industrial Technology 2511.
One lecture, four laboratory hours per week.
- 3591. Tool Design. (3). (359)**
Study and design of gages, jigs, fixtures, and their applications in

manufacturing processes. **PREREQUISITE:** Industrial Technology 3421 and Industrial Technology 3571.

Two lecture, two laboratory hours per week.

- 3611. Woodwork III. (3). (361)**
Woodworking machines with emphasis on special operations. **PREREQUISITE:** Industrial Technology 1611.
One lecture, four laboratory hours per week.
- 3631. Forestry Products. (3). (363)**
Study and testing of wood and forest products. **PREREQUISITE:** Industrial Technology 3411.
- 3731. Metallurgy. (3). (373)**
Study and testing of metals and metal products. **PREREQUISITE:** Industrial Technology 3411.
- 3811. Electronic Communications. (3). (381)**
Study of transmission and reception of radio signals, including antennas, transmission lines, modulation, and demodulation. **PREREQUISITE:** Industrial Technology 2821.
Two lecture, two laboratory hours per week.
- 3821. Industrial Electronics. (3). (382)**
Study of electronics in industry, with emphasis on motor controls, high frequency heating and electronic instrumentation. **PREREQUISITE:** Industrial Technology 2821.
- 4381. Principles of Supervision. (3). (438)**
Study of the functions of supervisory personnel.
- 4471. Production Control. (3). (447)**
Study of the elements of production and their coordination emphasized by visits to industrial plants.
- 4472. Production Methods. (3). (442)**
Practice in wood and/or metal production procedures. **PREREQUISITE or COREQUISITE:** Industrial Technology 4471.
- 4481. Plant Layout. (3). (448)**
Study of industrial plants, with emphasis on floor plans and placement of facilities. **PREREQUISITE:** Industrial Technology 4471.
- 4491. Time and Motion Analysis. (3). (449)**
Work simplification, including analysis as applied in time and motion. **PREREQUISITE:** Industrial Technology 4471.
- 4811. Transistors. (3).**
Study of transistor theory and its application to circuits. **PREREQUISITE:** Industrial Technology 3811 or 3821.
- 4831. Computer Programming in Technology. (3).**
Applications of computers for the solution of problems in the area of technology. **PREREQUISITE:** Mathematics minor.
Two lecture, two laboratory hours per week.
- 4832. Digital Circuits. (3).**
Principles of logic circuits, binary arithmetic, counter circuits, and memory circuits as used in modern computer systems. **PREREQUISITE:** Industrial Technology 4811.
Two lecture, two laboratory hours per week.
- 4944. Problems in Industrial Technology. (3). (434)**
Study and research in a specific area. **PREREQUISITE:** Senior clas-

sification, or majors and minors in Industrial Technology who can offer satisfactory evidence of being qualified to benefit by the course.

4951. **Fire Safety Problems.** (1). (336-A)
 4952. **Chemical Safety Problems.** (1). (336-B)
 4953. **Electrical Safety Problems.** (1). (336-C)
 4954. **Traffic Safety Problems.** (1). (336-D)

GRADUATE COURSES IN INDUSTRIAL TECHNOLOGY

For course descriptions and further details of the graduate program, see the Bulletin of The Graduate School.

ITALIAN

(See MODERN LANGUAGES)

JOURNALISM

PROFESSOR HERBERT LEE WILLIAMS, *Chairman*
Room 164, Administration Building

Requirements for the major and minor in journalism are listed on page 131.

1011. **Survey of Mass Communications.** (3). (111)
 Social background, scope, functions, and organization of modern communication media, with attention given to newspapers, magazines, motion pictures, radio, television, books, and comics.
1012. **Introduction to Modern Journalism.** (3). (112)
 A study of the development of current techniques of writing for publication, with emphasis on the American press.
2111. **Elementary News Writing.** (3). (211)
 A study of news story structure and the factors that determine the value of news, with consideration given to both the theoretical and practical aspects of news gathering and reporting; lecture and laboratory sessions.
2112. **Reporting.** (3). (212)
 Gathering and writing news of the University community, with assignments arranged on *The Tiger Rag* or suburban newspapers, or with the University Public Information Office. PREREQUISITE: Journalism 2111.
2211. **Typography.** (3). (200)
 A lecture-laboratory study of the development of type and the processes of composition, engraving, stereotyping, and printing. Students are provided opportunities to practice the effective use of type and illustration in mass communication.
3011. **Picture Editing.** (3). (340)
(formerly Photojournalism)
 Selection and arrangement of illustrative material for newspapers and magazines; analysis, use and influence of the news picture; techniques of the picture story; and the role of the picture magazine in the field of communication.

- 3111. Press Photography. (3). (325)**
Taking pictures with the news camera, developing films, making enlargements, cropping and scaling for publication. Students may bring their own cameras. Open to non-majors with permission of the department chairman.
- 3112. Editing I. (3). (312)**
Headline writing and editing practices with *The Tiger Rag* used as a laboratory.
- 3113. Editing II. (3). (313)**
Concentrated practice in editing and copyreading problems. Detailed study of newspaper and magazine page makeup. **PREREQUISITE:** Journalism 3112.
- 3114. Feature and Article Writing. (3). (332)**
Techniques involved in writing the feature story; study of the magazine market and the specialized requirements of periodicals to which stories are submitted; students will write and submit articles for publication in magazines and newspapers and for acceptance by syndicates.
- 3115. Interpretative Reporting. (3). (322)**
Reporting of important news with attention to analysis, interpretation, and investigation. **PREREQUISITES:** Journalism 2111, 2112, and junior or senior standing.
- 3116. The Magazine. (3). (380)**
Historical backgrounds, contents, purposes, and readership of general magazines, business and trade papers, and specialized journals.
- 3117. Magazine Editing and Production. (3). (300)**
Editing and production problems of magazines with emphasis on business, industrial, and home periodicals; headline and title writing, pictorial copy layout, staff organization, and production processes. **PREREQUISITE:** Journalism 3116, or permission of the instructor.
- 3221. Advertising Copy Writing. (3). (314)**
The principles of advertising psychology studied in relation to the proved techniques for writing effective copy; approximately half of the course is devoted to practice in writing copy and in preparing rough layouts.
- 3222. Advertising Sales. (3). (315)**
Practical experience in the preparation and selling of completed advertisements; the student will service his own clients throughout the semester, using *The Tiger Rag* as a space medium. **PREREQUISITE:** Journalism 3221.
- 3223. Advertising Production. (3). (300)**
Principles of typography for advertising composition and display; layout, copyfitting, and type selection in laboratory. **PREREQUISITE:** Journalism 2211.
- 3331. Radio News Writing and Editing. (3). (365)**
The processing of news for radio, with attention given to radio news style and practice and the preparation of special-events reporting. One lecture per week and four hours per week working in the news rooms of Memphis radio stations.
- 3332. Introduction to Radio-Television. (3). (360)**
A survey of the history of radio and television, principles of transmission and reception of signals, governmental and self-imposed

regulations, and the responsibility of the broadcaster; intended to develop an awareness of the social implications of radio and television.

- 3333. Television Writing. (3). (370)**
Writing scripts for telecasts of news, sports, interviews, special events, documentaries, and commercials, with special attention to the necessary studio operations.
- 4001. Law of the Press, Radio, and Television. (3). (400)**
Origin and development of the legal principles affecting freedom of expression, and provisions of the laws of libel, slander, copyright, and other statutes limiting communication in the fields of publishing and broadcasting.
- 4002. Writing Projects. (3). (401)**
Internship for students who have completed basic journalism courses or whose experience has prepared them to handle the duties; students will work on the staff of *The Tiger Rag*, in the office of the University Public Information Office, or will do approved research in journalism.
- 4003. Writing Projects. (3). (402)**
Continuation of Journalism 4002.
- 4004. Journalism in the Secondary Schools. (3). (421)**
Organization and direction of journalism courses in the high school; financial problems of high school publications and their relation to educational objectives; public relations and preparation of news releases for school administrators. Intended primarily for those students who expect to teach journalism or to supervise publications in the high school.
- 4005. History of Journalism. (3). (411)**
A study of the origin and development of American journalism; students who enroll in this course should have completed History 2601 and 2602 or the equivalent.
- 4006. Literature of Journalism. (3). (440)**
A bibliographical approach to the field of mass communication, consisting of critical reading of selective works. **PREREQUISITE:** permission of the department chairman.
- 4008. Advanced Press Photography. (3).**
A continuation of Journalism 3111 with emphasis placed on materials for duotones and for two-color, three-color, and four-color separation processes.
- 4111. The Editorial. (3). (412)**
The work of the editor and the editorial writer, with emphasis on editorial problems, methods, policies, and style.
- 4221. Community Newspaper Management. (3). (413)**
A survey of the economic, social, and cultural aspects of small town daily and weekly newspapers, with emphasis on the role of the editor in community life.
- 4222. Public Relations. (3). (450)**
The development, scope, and modern role of public relations, with emphasis on case studies, lectures, and experimentation with major public relations tools and practices.

LATIN

(See CLASSICAL LANGUAGES)

LIBRARY SERVICE

(See CURRICULUM AND INSTRUCTION)

MANAGEMENT

ASSOCIATE PROFESSOR JAMES M. TODD, *Chairman*
Room 101, The School of Business Administration Building

Requirements for the major and minor in management are listed on page 145.

- 1010. Introduction to Business. (3). (101)**
 A survey course to acquaint beginning business students with the major institutions and practices in the business world, to provide the elementary concepts of business, and to act as an orientation course for selection of a specific major. Both semesters. Open to freshmen only.
- 2711. Business Statistics I. (3). (271)**
(formerly 3710)
 Procedures of collection, analysis, presentation and interpretation of economic and business data. Both semesters. PREREQUISITE: Mathematics 1212 or higher.
- 3010. Business Law I. (3). (301)**
 Nature and classification of law, contracts, negotiable instruments. Study of selected cases. Both semesters. PREREQUISITE: junior classification or permission of the instructor.
- 3020. Business Law II. (3). (302)**
 Business organization, personal property, trade regulations, with emphasis on case studies. Both semesters. PREREQUISITE: Management 3010.
- 3220. Labor Legislation. (3). (322)**
 Historic and philosophic background for labor legislation with emphasis on recent legislation in the labor area and the effect of these laws on social and economic institutions. Spring semester. PREREQUISITE: Economics 3210.
- 3310. Real Estate. (3). (331)**
 Real estate law, property description, methods of transferring property, joint ownership, tax sales and title to property, inheritance of real property. Spring semester. PREREQUISITE: junior classification or permission of the instructor.
- 3410. Business Organization and Finance. (3). (341)**
 Promotion, organization, and financing of business enterprise; principles underlying selection of business form; structure and trends of

American enterprise system; financial management; emphasis is placed on small and medium-sized enterprises. Both semesters. **PREREQUISITE:** Accounting 2020.

3510. Production Management I. (3). (345)

Development of scientific management; principles and mechanism of organization and management in manufacturing, including plant location and layout, mass production techniques, standardization conditions, and production controls. Spring semester. **PREREQUISITE:** Economics 3210.

3711. Business Statistics II. (3). (471)

(formerly 4710)

Extension of the range of topics covered in Business Statistics I to include methods of correlation, analysis of variance, forecasting and general business research. Both semesters. **PREREQUISITE:** Management 2711.

3750. Introduction to Data Processing Systems. (3). (381)

A course designed to give an introduction to the characteristics of electronic machines and their use in computation and data processing. The objective is to give the student an understanding of the machines rather than to develop the advanced technical or mathematical aspects. **PREREQUISITE:** Mathematics 1212 or higher.

3810. General Insurance. (3). (335)

Theory, practice, and problems involved with life, fire, marine, casualties, and surety insurance; rates and rating; actuarial activities. Fall Semester. **PREREQUISITE:** junior classification or permission of the instructor.

4210. Personnel Administration. (3). (421)

Employer-employee relationship; job analysis; recruitment, selection, training, transfer, promotion, and dismissal of employees; industrial unrest; wage plans and policies; employee health, interest, and morale; dealing with unions. Spring semester. **PREREQUISITE:** Economics 3210 or permission of the instructor.

4220. Collective Bargaining. (3). (422)

Labor-management relations from the standpoint of collective bargaining contracts, with emphasis on the process of negotiating agreements, including procedures, tactics, and subject matter. Fall semester. **PREREQUISITE:** Economics 3210.

4310. Real Estate Law. (3). (431)

This course covers law and legal instruments as applied to real estate and is designed to serve the needs of property owners and those engaged in the real estate business. **PREREQUISITE:** Management 3310.

4320. Real Estate Finance. (3). (432)

Examination and analysis of the sources of funds for financing all kinds of real estate transactions, including FHA and VA types. **PREREQUISITE:** Management 3310.

4330. Property Management. (3). (433)

The fundamentals of management of real estate; examination and analysis of problems, duties, and responsibilities of the property manager. **PREREQUISITE:** Management 3310.

4340. Real Estate Appraisal. (3). (434)

The fundamentals of appraising residential, commercial, and industrial real estate. **PREREQUISITE:** Management 4320.

- 4350. Industrial Real Estate. (3). (430)**
All phases of industrial real estate practices are covered. These include attractions to industry; financing industrial real estate; appraising industrial real estate; and selecting of industrial sites. **PREREQUISITE:** Management 3310.
- 4410. Management of Business Enterprise. (3). (442)**
Consideration is given to over-all policy formation and practice in the operation of new and going business concerns, with emphasis on problems of nonfinancial management in the small firm. Both semesters. **PREREQUISITE:** Management 3410.
- 4420. Human Relations in Business. (3). (443)**
A study of the principles of human relations as applied to business. **PREREQUISITE:** Management 3410.
- 4510. Production Management II. (3). (445)**
(formerly Industrial Management II.)
A course devoted to solving typical problems that arise in the planning, layout, control, operation, and administration of a manufacturing enterprise. **PREREQUISITE:** three of the 3000 courses in this major or permission of the instructor.
- 4520. Production Control. (Same as Industrial Technology 4471). (3). (447)**
A study of the elements of production and their coordination emphasized by visits to industrial plants.
- 4530. Plant Layout. (Same as Industrial Technology 4481). (3). (448)**
Study of industrial plants, with emphasis on floor plans and placement of facilities. **PREREQUISITE:** permission of the instructor.
- 4540. Time and Motion Analysis. (Same as Industrial Technology 4491). (3). (449)**
Work simplification, including analysis of jobs and trades, as applied in time and motion. **PREREQUISITE:** Management 4520.
- 4550. Statistical Quality Control. (3). (472)**
A course emphasizing the modern statistical approach to the control of industrial quality. Topics treated include the Shewart Control Chart for Variables and Attributes, Acceptance Sampling, and Introduction to the Design of Industrial Experiments. **PREREQUISITE:** Management 3711.
- 4610. Corporation Finance. (3). (441)**
Advanced treatment of financial management with emphasis on small and medium-sized enterprise and the forces underlying determination of policy; financial problems are considered in connection with re-funding, reorganization, mergers, and consolidations. Both semesters. **PREREQUISITE:** Management 3410.
- 4750. Electronic Data Processing and Programming. (3). (481)**
A problem oriented course, dealing with the programming of digital computers. FORTRAN will be taught and applied to typical business problems, using the facilities of the Academic Computing Center. **PREREQUISITE:** Management 3750 and Mathematics 1212 or permission of the instructor.
- 4760. Application of Computers to Modern Business. (3). (482)**
A continuation of Management 4750, applying FORTRAN to more advanced business problems. COBOL will be taught. Emphasis will be given to computer systems design for typical business applications. **PREREQUISITE:** Management 4750 or permission of the instructor.

4810. Property and Casualty Insurance. (3). (435)
The forms and functions of fire, marine, automobile, general liability, and other types of property and casualty insurance with emphasis on their application to commercial and industrial occupancies. A survey of current underwriting practice. **PREREQUISITE:** Management 3810.

4820. Life and Health Insurance. (3). (436)
The functions of life and health insurance with emphasis upon the need for insurance and the service of life and health insurance to the American family and community. A study of the mechanics of private and public insurance and annuities. **PREREQUISITE:** Management 3810.

4830. Insurance Agency Management. (3). (437)
Organization, management, and operation of insurance sales agencies. Equal emphasis is given to the problems and practices of the company-owned and the independent agency. **PREREQUISITE:** Management 3810.

4910. Management Problems. (1 to 3) (495)
Student will carry on approved research projects in his major area under supervision of staff members. Both semesters. **PREREQUISITE:** senior standing and permission of the department chairman.

(The following courses, offered in The Graduate School may be open, by special permission, to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

5010. Law of Taxation of Estates, Inheritances, and Gifts. (3). (S-503)
A survey course of the law of taxation as applied to the transmission of property by gift or death and its impact upon accumulations of wealth. The constitutional basis, statutory implementation, administrative regulation, and court interpretation of the laws of the United States and the various states. **PREREQUISITE:** Management 3020.

5020. Estate Planning. (3). (S-505)
Estate planning from an individual viewpoint designed to create, maintain, and distribute the maximum estate possible. Consideration is given to the aspects of law, insurance, real estate, investments, and taxes as they relate to the creation of estates by individuals and those who will be engaged in assisting others. **PREREQUISITE:** Management 5010.

5210. Seminar in Industrial Relations. (3). (S-523)
The factors which condition labor-management relations are examined; the nature and significance of labor disputes are analyzed, together with factors involved in their solution. Special attention is given to the growing importance of labor policies and their impact upon labor-management relations and the public in general. **PREREQUISITE:** Economics 3210.

5410. Advanced Management of Business Enterprise. (3). (S-542)
The development of the top management viewpoint, the basic objective being to develop executive abilities and creative thinking. Selected problem areas of modern business will be explored, alternative courses of action appraised, and decision-making ability developed. **PREREQUISITE:** Management 4410, 4610, and Marketing 3010.

- 5420. Seminar in Management. (3). (S-543)**
 Special study of selected current problems in this area. For the most part individual studies will be pursued, with group analysis and discussion at regular class meetings. **PREREQUISITE:** permission of the instructor.
- 5610. Analysis and Control of Business. (3). (S-541)**
 An overall study of management problems and the application of scientific management techniques to the control of various phases of business operation. Included are general management controls, financial management controls, sales management controls, production management controls, and personnel control and appraisal. **PREREQUISITE:** Management 4610 and 4410.

GRADUATE COURSES IN MANAGEMENT

Some of the 4000 and 5000 courses described in the preceding section may be taken for graduate credit. For further details of the graduate program see the Bulletin of The Graduate School.

MARKETING

PROFESSOR CHARLES ROBERT SPINDLER, *Chairman*
Room 105, The School of Business Administration Building

Requirements for the major and minor in marketing are listed on page 146.

- 3010. Basic Marketing. (3). (301)**
 General survey of the marketing structure; development, functions, costs, institutions and pricing. Both semesters. **PREREQUISITE:** Second semester sophomore.
- 3011. Marketing Institutions. (3).**
 Analysis of existing marketing institutions at both wholesale and retail level with emphasis on their development, operating characteristics, and employment in the channels of distribution. Both semesters. **PREREQUISITE or COREQUISITE:** Marketing 3010.
- 3012. Marketing Promotions. (3).**
 An interdisciplinary approach to the total area of promotion, including an overview of the promotional process, insights into the operations of promotions (e.g., communications, psychology, sociology, and other disciplines), and an exploration into the "why" of the promotional process. Both semesters. **PREREQUISITE or COREQUISITE:** Marketing 3010.
- 3080. Marketing Analysis. (3).**
 An introduction into types of marketing analyses which will aid in evaluating the marketing operation so as to minimize risk and discover profitable and/or unprofitable elements in the marketing mix. Both semesters. **PREREQUISITE:** Marketing 3010.
- 3110. Advertising Fundamentals. (3).**
 Survey of the field of advertising including agencies, media, layout, copy, typography. Both semesters. **PREREQUISITE:** Marketing 3012, or permission of the instructor.

3120. Advertising Problems. (3).

*New course; number formerly assigned to
"Advertising Design," no longer offered*

A case study of the advertising functions, emphasizing the determination of advertising strategy; the planning of creative strategy; the planning of media strategy; evaluation of advertising results and an introduction into organization and management of the advertising function. Both semesters. PREREQUISITE: Marketing 3110.

3210. Logistics Administration. (3).

A critical examination of the managerial aspects of the logistics function in the business enterprise. Consideration is given to the functioning of the logistics system from both an internal and external point-of-view. Fall semester. PREREQUISITE or COREQUISITE: Marketing 3010.

3220. Industrial Marketing. (3)

A comprehensive survey of the industrial market—products, structure and functioning. An examination of those segments of the industrial market concerned with agricultural raw materials and products purchased by governmental agencies is also included. Spring semester. PREREQUISITE or COREQUISITE: Marketing 3011.

3310. Retail Store Management. (3).

*New course; number formerly assigned to
"Textiles," no longer offered*

A study of the principles that underlie the successful operation of retail institutions as well as a survey of career opportunities and literature in the field of retailing. Both semesters. PREREQUISITE: Marketing 3011.

3320. Retail Merchandising. (3).

An analysis of the buying function at the retail level. Study is directed into the areas of organizing the buying function; determination of what to buy; selection of sources; timing of purchases; pricing and merchandising; and control of the buying function. Both semesters. PREREQUISITE: Marketing 3310.

3410. Sales Fundamentals. (3).

Covers the basic essentials of salesmanship, sales theory, sales techniques and sales role playing. The history of selling and the salesman's role in our economy are included to provide a deeper understanding of the contributions made by the American salesman. Both semesters. PREREQUISITE: Marketing 3012.

3420. Sales Promotion. (3).

*New course; number formerly assigned to
"Sales Theory and Techniques," no longer offered*

This course is designed to acquaint students with the vast and often unassigned area of marketing that exists between advertising and personal selling. This course brings into focus the vital marketing functions that must be performed by manufacturers or middlemen as products flow down the channels of distribution. Both semesters. PREREQUISITE: Marketing 3010 or permission of instructor.

4010. Marketing Administration. (3).

Study of marketing in depth using the case approach. Study includes consumer, product, market analysis, pricing, channel selection, promotion, wholesaling, retailing, and legal implications of the marketing system. Both semesters. PREREQUISITE: Marketing core and senior standing.

- 4080. Marketing Research. (3). (491)**
Research methods and procedures used in the field of marketing to help solve business problems. Both semesters. PREREQUISITES: Marketing 3080 and Management 2711.
- 4110. Advertising Media and Campaigns. (3).**
An investigation of the characteristics and uses of media by companies, product lines and reasons for selection. The last part of the semester will be devoted to the development of a campaign for a particular firm. Fall semester. PREREQUISITE: Marketing 3110.
- 4120. Advertising Management. (3).**
New course; number formerly assigned to "Television and Radio Advertising," no longer offered
A study of the advertising function as it relates to both the manufacturer and retailer who has own advertising department. Develops the objectives, development of the budget, and administration of the budget, and methods of evaluating the effectiveness of advertising effort. Spring semester. PREREQUISITE: Marketing 3110 and Marketing 3120.
- 4210. Quantitative Analysis of Logistic Systems. (3).**
An analytical approach to planning movement systems. Emphasis is placed on the application of quantitative tools to spatial and temporal problems. Spring semester. PREREQUISITE: Marketing 3210.
- 4220. Purchasing. (3). (422)**
A study of the policies for effective and efficient procurement of goods and services for today's industry. Close attention will be given to the measurement and evaluation of purchasing performance. Fall semester. PREREQUISITE: Marketing 3010.
- 4310. Retail Store Promotions. (3).**
New course; number formerly assigned to "Home Furnishings and Equipment," no longer offered
A comprehensive treatment of the promotional function of retail enterprises. Student is directed through an integrated study of all promotional aspects of retail store operation (advertising, sales promotion, display, publicity, public relations and personal selling). Emphasis is placed upon contemporary promotional problems of retail stores. Fall semester. PREREQUISITE: Marketing 3012 and Marketing 3310 or permission of instructor.
- 4330. Credit and Collections. (3). (485)**
A study of the American credit system and collection methods used today, significance of credit information, management of charge accounts, credit and collection correspondence, mercantile credit and importance of credit to our economic well-being. Spring semester. PREREQUISITE: Marketing 3010.
- 4410. Sales Management. (3).**
A survey course designed to define and describe the major sales management functions and to provide controlled practical application of sales management functions through the utilization of the case study approach. Ultimately, the student gains an overview of the operation of marketing departments through the synthesis of three primary divisions of marketing management—sales administration, sales personnel activities, and sales control. Fall semester. PREREQUISITE: Marketing 3410.
- 4420. Sales Training. (3).**
This course covers one of the most important staff activities within

any marketing department—the training of sales personnel. Designed to develop salesmanship, the art of persuasion, into a teachable subject which will apply to the business world. Student is taught and self-taught, how to become a sales trainer and to develop an understanding of the training director's responsibilities. Spring semester. PREREQUISITE: Marketing 3410.

4510. International Marketing. (3).

A study of the bases and promotion of foreign trade; international marketing organizations and methods; technical and financial features of international marketing. Fall semester. PREREQUISITE: Marketing 3010.

4520. Product Planning. (3).

(425)

A study of product analysis necessary from product conception to successful market penetration. Study of product planning in relation to place within the business organization, research and testing of product ideas, financing, pricing, channel selection, and promotion. Students will develop suitable product ideas and submit during semester in report form. Spring semester. PREREQUISITES: Marketing core and senior standing.

4991. Work Experience in Marketing I. (3).

Seniors majoring in marketing may, after receiving approval of the department chairman and professor concerned, obtain actual experience by working a minimum of 200 hours in approved marketing positions. Student may not be enrolled for more than 12 academic hours when enrolling for credit in work experience. Both semesters.

4992. Work Experience in Marketing II. (3).

Seniors majoring in marketing may, upon completion of Marketing 4991 with a grade of B or better, enroll for a second semester of work experience after receiving approval and meeting the requirements as stated above for Marketing 4991. Both semesters.

GRADUATE COURSES IN MARKETING

(For further details of the graduate program see the Bulletin of The Graduate School.)

MATHEMATICS

PROFESSOR HOWARD S. KALTENBORN, *Chairman*
Room 429, Chemistry Building

Requirements for the major and minor in mathematics are listed on page 132. Mathematics requirements in various schools of the University may be satisfied as follows:

To fulfill the mathematics requirement for the bachelor's degree in The School of Arts and Sciences: Mathematics 1111 and 1112; or 1211 and 1212; or 1321 and 2321.

To fulfill the requirement for the bachelor's degree in The School of Business Administration: Mathematics 1212 or a mathematics course approved by the dean of The School of Business Administration.

Mathematics requirements for the bachelor's degree in The School of Education and for teacher certification are listed on page 154.

- *1111. The Structure of Mathematics. (3).**
Sets; symbolic logic; the postulational method; number fields; equations and inequalities.
- 1112. The Structure of Mathematics. (3).**
Relations and functions; coordinate geometry; algebraic graphs; analytic trigonometry; numerical computation; polynomial calculus. PREREQUISITE: Mathematics 1111.
- 1181. Concepts of Number. (3). (101)**
Elements of set theory; introduction to logic; number symbols; number systems; fundamental operations of arithmetic.
- 1182. Concepts of Algebra. (3). (102)**
The structure of elementary algebra; mathematical phrases and sentences; equations and inequalities; applications. PREREQUISITE: Mathematics 1181.
- 1201. Basic Mathematics. (3).**
Algebraic operations, linear systems, inequalities, exponents, logarithms. RESTRICTION: Credit allowed only when taken as first course in mathematics by student with less than two units of high school algebra or geometry.
- *1211. Basic Mathematics. (3). (122)**
Exponents; fractions; linear and quadratic functions and graphs; quadratic equations and systems; progressions; interest; binomial theorem; permutations and combinations; probability. PREREQUISITE: Two units of high school algebra or geometry, or Mathematics 1201.
- 1212. College Algebra and Trigonometry. (3). (141)**
Axioms for numbers; inequalities; circle relations; trigonometric identities and graphs; polynomials; systems of equations; inverse trigonometric and exponential functions; complex numbers. PREREQUISITE: Three units of high school algebra and geometry, or Mathematics 1211.
- 1311. Finite Mathematics. (3).**
Compound statements; decision trees; logical relations; sets and set operations; partitions and counting; binomial and multinomial theorems; flow diagrams; probability theory and stochastic processes; decision theory. PREREQUISITE: two units of high school algebra or geometry, or Mathematics 1201.
- 1312. Elementary Calculus. (3).**
Introduction to the concepts and methods of elementary calculus of one real variable as related to rational, exponential, and logarithmic functions; the nature of derivatives; differentiation; application of the derivative; the nature of integration; the definite integral; applications of the definite integral. PREREQUISITE: Mathematics 1211 or Mathematics 1311.
- 1321. Analytic Geometry and Calculus. (5). (211)**
Essentials of analytic geometry including the straight line; the nature of derivatives; differentiation of algebraic functions; applications of the derivative; basic concepts of integration and the definite integral; applications of the definite integral. PREREQUISITE: 4 units of high school algebra, geometry and 12th grade mathematics, or Mathematics 1212.

*Credit may be earned in only one of the following courses: Mathematics 1111, Mathematics 1211.

- 2291. Mathematics of Finance. (3). (231)**
Compound interest and annuities, with applications; introduction to mathematics of life insurance. PREREQUISITE: Mathematics 1211 or 1212.
- 2321. Analytic Geometry and Calculus. (5). (212)**
Differentiation, integration and analytical aspects of the transcendental functions; methods of integration; additional topics in plane analytic geometry; hyperbolic functions; polar coordinates. PREREQUISITE: Mathematics 1321.
- 2322. Analytic Geometry and Calculus. (5). (213)**
Introduction to the calculus and algebra of vectors; parametric equations; vectors and analytic geometry in 3-space; partial differentiation; multiple integrals; infinite series. PREREQUISITE: Mathematics 2321.
- 2581. Concepts of Geometry. (3). (3)**
Introduction to the idea of proof in a postulational system; development of the geometric relationships independent of number, including congruent triangles, similar triangles, parallelograms, and circles; applications of number in geometry including coordinate geometry, lengths, areas, and volumes. PREREQUISITE: Mathematics 1182.
- 2611. Elementary Statistics. (3). (221)**
Basic statistical concepts; elementary probability theory; normal curve and applications; linear, multiple and partial correlation; statistical inference. PREREQUISITE: Mathematics 1211 or 1212, or Management 3710.
- 3111. Foundations of Mathematics. (3). (351)**
Euclidean and non-Euclidean geometries viewed from an historical perspective and as purely hypothetical-deductive systems; the modern mathematical method; miscellaneous problems. PREREQUISITE: Mathematics 1321.
- 3112. Foundations of Mathematics. (3). (352)**
A continuation of Mathematics 3111. Algebraic structures; set theory; development of real and complex numbers; calculus of propositions. PREREQUISITE: Mathematics 3111.
- 3391. Differential Equations. (3). (3)**
Ordinary differential equations including series solutions. PREREQUISITE: Mathematics 2322.
- 3631. Probability. (3). (331)**
Classical probability theory; stochastic variables; joint distributions; probability density functions; limit theorems; practical applications. COREQUISITE: Mathematics 2322.
- 3651. Mathematical Statistics. (3). (322)**
Discrete sample spaces; combinatorial theory; special and multivariate probability distributions; moments and moment generating functions; central limit theorem; sampling distributions; point estimators. COREQUISITE: Mathematics 2321.
- 3652. Mathematical Statistics. (3). (3)**
A continuation of Mathematics 3651. Multivariate probability density functions; moments of special probability densities; sums of random variables; moments of linear combinations of random variables; statistical inference and decision theory; confidence intervals for means, proportions, and variances; nonparametric tests of hypotheses. PREREQUISITE: Mathematics 3651.

- 3711. Programming for Digital Computers. (3). (371)**
Complete treatment of FORTRAN programming; flow-charting and algorithm specification; subroutines; examples of applications to statistics, numerical analysis, and simulation. **PREREQUISITE:** Mathematics 2321 or 1321 and permission of instructor.
- 4151. History of Mathematics. (3). (421)**
The development of mathematics from the earliest times to the present; problem studies; parallel reading and class reports. **PREREQUISITE:** Mathematics 3111.
- 4171. Undergraduate Mathematics Seminar. (1). (495)**
Readings and discussions of mathematical topics of current interest. **PREREQUISITE:** permission of the instructor.
- 4172. Undergraduate Mathematics Seminar. (1). (496)**
Readings and discussions of Mathematical topics of current interest. **PREREQUISITE:** permission of the instructor.
- 4221. Theory of Numbers. (3). (422)**
Number theoretic functions; congruences; quadratic residues; Diophantine equations; continued fractions. **PREREQUISITE:** Mathematics 3111.
- 4241. Linear Algebra and Matrix Theory. (3). (341)**
Vector spaces, linear transformations and matrices, sets of linear transformations. **PREREQUISITE:** Mathematics 2322, 3111.
- 4351. Real Variables. (3). (481)**
The real number system; limits; sequences and functions; continuity; derivatives; mean value theorems; integration. **PREREQUISITE:** Mathematics 2322, 3111.
- 4361. Complex Variables. (3). (491)**
The complex plane; linear and conformal mappings; analytic functions; complex integration. **PREREQUISITE:** 2322, 3111.
- 4391. Applied Mathematics. (3). (411)**
Laplace transforms; Fourier series; partial differential equations. **PREREQUISITE:** Mathematics 3391.
- 4392. Applied Mathematics. (3). (412)**
Gamma and Beta functions; other functions, including Hermite, Bessel, Legendre, and Laguerre; introduction to vector analysis. **PREREQUISITE:** Mathematics 4391.
- 4411. Topology. (3). (361)**
Introductory set theory; metric spaces; topological spaces; mappings; Hausdorff spaces; connectedness and compactness. **PREREQUISITE:** Mathematics 2322 and 3111.
- 4721. Numerical Analysis. (3). (372)**
Study of computer oriented methods for solution of polynomial and transcendental equations and ordinary differential equation; matrix calculations including inverses, determinants, eigenvalues, eigenvectors, etc.; numerical quadrature; polynomial interpolation; least squares curve fitting. **PREREQUISITE:** Mathematics 2321 and 3711.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

- 5171. Workshop in Junior High Mathematics. (3).**
This course is designed to provide in-service training to teachers in junior high school mathematics so that they may help in planning and implementing broad revisions in the mathematics programs at their respective schools.
- 5172. Workshop in Junior High Mathematics. (3).**
Continuation of Math 5171.
- 5173. Workshop in Senior High Mathematics. (3).**
This course is designed to provide in-service training to teachers of senior high school mathematics so that they may help in the planning and implementing broad revisions in the mathematics programs at their respective schools.
- 5174. Workshop in Senior High Mathematics. (3).**
Continuation of Math 5173.
- 5181. Introduction to Modern Mathematics. (3).**
Basic theory in the logical foundations of arithmetic; the postulational development of the number system; symbolic logic. **RESTRICTION:** Credit allowed only for students who do not have credit in Mathematics 3111 or 3112.
- 5261. Algebraic Theory. (3).**
Theory of groups, rings and fields, with applications. **PREREQUISITE:** Mathematics 3112 or 5181.
- 5381. Calculus for Secondary Teachers. (3).**
Function concept; elementary function theory; selected topics from analytic geometry and calculus.
- 5511. Geometric Theory. (3).**
Foundations of geometry; extensions of Euclidean geometry; non-Euclidean geometry; introduction to projective geometry. **PREREQUISITE:** Mathematics 3112 or 7181.
- 5681. Probability for Secondary Teachers. (3).**
Probability spaces, theory of statistical inference, physical interpretations of probability.

GRADUATE COURSES IN MATHEMATICS

For course descriptions and further details of the graduate program, see the Bulletin of The Graduate School.

MODERN LANGUAGES

ASSISTANT PROFESSOR WILLIAM BREWER, *Acting Chairman*

Room 209A, Jones Hall

The Department of Modern Languages offers majors and minors in French, German, and Spanish; requirements are listed on page 132. Details of the specific requirements in foreign languages for the various degrees offered by the University are explained on page 118.

FRENCH

IMPORTANT NOTE: *All students enrolled in an elementary course in French (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for French Drill Class 1101 or 1102, which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.*

- 1101. Elementary French. (3). (111)**
Elements of grammar and pronunciation, elementary conversation, and the reading of simple selections.
- 1102. Elementary French. (3). (112)**
A continuation of French 1101, completing the study of elementary French grammar, elementary conversation and the reading of simple French texts such as *Le Petit Prince* by St. Exupéry.
- 2201. Intermediate French. (3). (211)**
A review of French grammar with composition, conversation, and the reading of French short stories, designed to increase the student's vocabulary and to contribute to his mastery of idiomatic constructions.
- 2202. Intermediate French. (3). (212)**
A continuation of French 2201, with greater emphasis on accuracy in oral and written expression and reading for comprehension.
- 2203. French Conversation. (2).**
Oral practice on subjects of French civilization. Especially recommended for students registered in French 2201. Credit in this course will not apply toward a major or minor in modern languages nor will it satisfy any part of the foreign language requirement for graduation. **PREREQUISITE:** French 1101 and 1102, or permission of the instructor.
- 2204. French Conversation. (2).**
A continuation of French 2203; especially recommended for students registered in French 2202. Credit in this course will not apply toward a major or minor in modern languages, nor will it satisfy any part of the foreign language requirement for graduation. **PREREQUISITE:** French 1101 and 1102, or permission of the instructor.
- 2251. French Drama Workshop. (1). (271)**
Students in this course will work through and produce scenes from well-known French plays, emphasizing good diction and sentence rhythm. **PREREQUISITE:** Permission of department chairman. *Credit in this course will not apply toward a major or minor in modern languages, nor will it satisfy any part of the foreign language requirement for graduation.*
- 3301. Advanced Conversation and Composition. (3). (321)**
A review of grammatical principles and their application in speaking and writing.
- 3302. Advanced Conversation and Composition. (3). (322)**
A continuation of French 3301.
- 3411. Survey of French Literature. (3). (311)**
Introduction to the civilization of France through lectures and the readings of representative literary works and writers from the beginnings through the eighteenth century.
- 3412. Survey of French Literature. (3). (312)**
A continuation of the study of French civilization through lectures

and reading of representative works of the major writers in the nineteenth and twentieth centuries.

- 3421. The Seventeenth Century. (3). (331)**
A study of the underlying principles of French Classicism in general and of the theatre in particular, with emphasis on works of Corneille, Molière, and Racine and their relationship to the critical theories of Boileau.
- 3422. The Seventeenth Century. (3). (332)**
A study of the representative works in the classical genres, emphasizing the later masterpieces of Molière and Racine, and selected works of Mme. de La Fayette, La Fontaine, Mme. de Sévigné, La Bruyère, and La Rochefoucauld.
- 4301. French Phonetics. (3).**
The theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: Three years of college French or permission of the instructor.
- 4305. French Stylistics. (3).**
Translations of English prose into French with an emphasis on style. PREREQUISITE: French 3302.
- 4421. The Eighteenth Century. (3). (441)**
The novel from Lesage through the eighteenth century and the drama from Lesage through the theatre of Beaumarchais.
- 4422. Liberal Ideas in the Eighteenth Century. (3). (442)**
Study of philosophical thought from the revocation of the Edict of Nantes to the French Revolution, with attention given to Bayle, Montesquieu, Voltaire, Diderot, and Rousseau.
- 4431. The Modern French Novel. (3). (411)**
The French novel from the Revolution to the twentieth century, treating the movements of Romanticism, Realism, and Naturalism as they are reflected in the works of such authors as Balzac, Stendhal, Flaubert, and Zola.
- 4432. The Contemporary French Novel. (3). (412)**
A general survey of the twentieth-century French novel, treating the works of such authors as Proust, Gide, Mauriac, Malraux, Sartre, Camus, Maurois, and others.
- 4451. The Modern French Drama. (3). (421)**
French drama from 1800 to 1870, including such authors as Hugo, de Vigny, de Musset, Scribe, Augier, and Dumas *filis*.
- 4452. The Contemporary French Drama. (3). (422)**
From Bècque and his school, the *Théâtre Libre*, and Rostand to the present, with emphasis on the twentieth-century drama and such playwrights as Pagnol, Claudel, Tristan Bernard, Giraudoux, Anouilh, Montherlant, Camus, Sartre, Cocteau, and others.
- 4471. Nineteenth-Century Poetry. (3). (451)**
French poetry from Chenier through the Parnassians and the Symbolists.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

- 5401. Old French. (3).**
Introductory seminar. Historical grammar and study of the *Chanson de geste*; also the *Lais* of Marie de France and *Aucassin et Nicolette*.
- 5421. The French Renaissance. (3).**
The new world—literary, as seen in the works of Ronsard and the Pléiade; philosophical and political, in those of Rabelais and Montaigne.
- 5481. Realism and Naturalism. (3).**
The impact of positivism and scientific methods on French literature. Realism in Balzac, Flaubert, and Dumas *filis*; naturalism in Zola, les Frères Goncourt, and the naturalistic theatre.

GRADUATE COURSES IN FRENCH

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

GERMAN

IMPORTANT NOTE: *All students enrolled in an elementary course in German (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for German Drill Class 1101 or 1102 which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.*

- 1101. Elementary German. (3). (111)**
Extensive drill in pronunciation, elementary conversation, and aural understanding, and in translating the oral and written language.
- 1102. Elementary German. (3). (112)**
A continuation of German 1101 devoted to further extensive drill in fundamentals.
- 2201. Intermediate German. (3). (211)**
A comprehensive review of German grammar, with readings and exercises designed to increase the student's vocabulary, contribute to his mastery of idiomatic constructions, and introduce him to German literature.
- 2202. Intermediate German. (3). (212)**
A continuation of German 2201, with further reading in German literature designed to enlarge the student's vocabulary and improve his pronunciation.
- 2203. Scientific German. (3). (222)**
Readings in medical and scientific German. **PREREQUISITE:** German 2201.
- 2251. German Drama Workshop. (1). (271)**
Students in this course will work through and produce scenes from well-known German plays, emphasizing good diction and sentence rhythm. **PREREQUISITE:** Permission of department chairman. *Credit in this course will not apply toward a major or minor in modern languages, nor will it satisfy any part of the foreign language requirement for graduation.*
- 3301. Advanced Conversation. (3). (331)**
Conversations devoted chiefly to material dealing with modern Germany.

- 3302. Advanced Composition and Grammar. (3). (332)**
Translation of English prose into German, with attention given, when necessary, to difficult points of grammar.
- 3411. Survey of German Literature. (3). (311)**
A survey of German literature from the beginnings to the Reformation.
- 3412. Survey of German Literature. (3). (312)**
A continuation of German 3411, from the Reformation to the early Classicists.
- 3451. Nineteenth-Century Drama. (3). (355)**
Selected plays of Kleist, Grillparzer, and Hebbel.
- 3461. Nineteenth-Century Prose. (3). (353)**
The shorter works of Tieck, Arnim, Kleist, Eichendorff, Meyer, and others.
- 3471. Nineteenth-Century Poetry. (3). (354)**
Poetic works of Klopstock, Novalis, Heine, Uhland, and others.
- 4421. Mysticism and the Baroque Period. (3).**
Studies in the writings of the great German mystics, emphasizing their influence on the poetics of the Baroque period.
- 4441. The Age of Enlightenment. (3).**
Readings in Lessing (exclusive of the dramas), Wieland, the early Goethe, the early Schiller, and others, with lectures on the philosophical, political, and social backgrounds. PREREQUISITE: German 3412 or permission of the instructor.
- 4461. Contemporary Prose and Poetry. (3). (451)**
Analysis and discussion of the short stories of Hauptmann, Mann, Schnitzler, Kafka, and others; and the lyrics of Hofmannsthal, Rilke, George, Benn, and others.
- 4462. Contemporary Drama. (3). (452)**
Analysis and discussion of plays by Hauptmann, Toller, Kaiser, Paul Ernst, and others.
- 4481. The Classical Period. (3). (411)**
Selected plays by Lessing and Schiller, with lectures on the historical, literary, and philosophical backgrounds.
- 4482. The Classical Period. (3). (412)**
The major plays and certain prose works of the young Goethe read and discussed in the light of the age and of the author's development.
- (The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)*
- 5303. History of the German Language. (3).**
The development from Primitive Germanic to New High German.
- 5401. Old High German. (3).**
A specialized study of Old High German grammar and representative extant documents augmented by a comparative study of Older Germanic language, history, and literature.
- 5481. The Age of Realism. (3).**
German literature and thought from 1830 through 1880. Lectures with extensive readings.

5482. Naturalism, Impressionism, and Expressionism. (3).

Literature and philosophical movements from 1880 through 1930.
Lectures with extensive readings.

GRADUATE COURSES IN GERMAN

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

HEBREW

IMPORTANT NOTE: *Courses in Hebrew are offered for elective credit only and will not satisfy any part of the foreign language requirement for the baccalaureate degree. Credit will be allowed for a single semester.*

1101. Elementary Hebrew. (3). (111)

An introduction to the Semitic family of languages through Hebrew; the Hebrew alphabet, synthetic morphology in word structure, simple syntax, introduction to composition, reading and writing in Hebrew script.

1102. Elementary Hebrew. (3). (112)

Conjugation of simple verbs, the active and passive voices, introductory conversation, composition, and the Hebrew short story.

2201. Advanced Hebrew Composition. (3). (211)

Reading of Modern Israeli poetry and the Hebrew novel. Selected readings from the wisdom literature of the Bible: The Book of Proverbs, the Book of Job, the Book of Ecclesiastes. Readings from the Israeli daily press. Conversational Hebrew. **PREREQUISITE:** Hebrew 1102 or its equivalent.

2202. Advanced Hebrew Composition. (3). (212)

Further readings in a survey of Biblical and post-Biblical Hebrew literature. Readings from the prophets: Isaiah, Jeremiah, Ezekiel. Advanced conversational Hebrew. Israelology. Study of the ancient and modern customs and mores of the inhabitants of the land of Israel. The Hebrew Calendar. **PREREQUISITE:** Hebrew 2201 or its equivalent.

ITALIAN

IMPORTANT NOTE: *All students enrolled in an elementary course in Italian (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for Italian Drill Class 1101 or 1102 which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.*

1101. Elementary Italian. (3). (111)

Elements of grammar and pronunciation, elementary conversation, and the reading of simple selections.

1102. Elementary Italian. (3). (112)

A continuation of Italian 1101, completing the study of elementary Italian grammar, elementary conversation, and the reading of simple texts.

2201. Intermediate Italian. (3).

A comprehensive review of Italian grammar with readings, including Italian magazines and newspapers, with exercises designed to increase the student's vocabulary, contribute to his mastery of idiomatic constructions, and introduce him to Italian literature.

2202. Intermediate Italian (3).

A continuation of Italian 2201, with further reading in Italian literature designed to enlarge the student's vocabulary and improve his pronunciation.

PORTUGUESE

IMPORTANT NOTE: All students enrolled in an elementary course in Portuguese (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for Portuguese Drill Class 1101 or 1102 which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.

1101. Elementary Portuguese. (3).

Elements of grammar and pronunciation, elementary conversation, and the reading of simple selections.

1102. Elementary Portuguese. (3).

A continuation of Portuguese 1101, with reading selections of increasing difficulty.

RUSSIAN

IMPORTANT NOTE: All students enrolled in an elementary course in Russian (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for Russian Drill Class 1101 or 1102, which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.

1101. Elementary Russian (3). (111)

Extensive drill in the principles of grammar with practice in pronunciation, elementary conversation and aural understanding, and translation.

1102. Elementary Russian. (3). (112)

A continuation of Russian 1101, devoted to further extensive drill in the fundamentals.

2201. Intermediate Russian. (3). (211)

A comprehensive review of Russian grammar, with readings and exercises designed to increase the student's vocabulary, contribute to his mastery of idiomatic constructions, and introduce him to Russian literature.

2202. Intermediate Russian. (3). (212)

A continuation of Russian 2201, with further reading in Russian literature designed to enlarge the student's vocabulary and improve his pronunciation.

3411. Survey of Russian Literature. (3).

Survey of Russian literature from the earliest chronicles, folktales, and legends through the classical period to the end of the eighteenth century.

3412. Survey of Russian Literature. (3).

Survey of Russian literature from the beginning of the nineteenth century to the Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Dostoevski, Tolstoi, and Chekhov.

- 3441. Russian Literature of the Nineteenth Century. (3).**
An introduction to the authors and work which herald the Golden Age of Russian Literature, with representative works from Pushkin, Lermontov, Gogol, and Turgenev.
- 3442. Russian Literature of the Nineteenth Century. (3).**
Readings in representative works of Dostoevski, Tolstoi, Chekov, and Gorki.

SPANISH

IMPORTANT NOTE: All students enrolled in an elementary course in Spanish (1101, 1102) must spend one hour each week in the language laboratory, for which no extra credit is granted. A student may, however, gain one hour credit if he registers for Spanish Drill Class 1101 or 1102, which requires one scheduled hour each week with a foreign assistant and one unscheduled hour in the laboratory.

- 1101. Elementary Spanish. (3). (111)**
Intensive drill in the principles of grammar, with exercises in pronunciation, elementary conversation and aural understanding, and translation of the oral and written language.
- 1102. Elementary Spanish. (3). (112)**
A continuation of Spanish 1101, with further intensive drill in the fundamentals.
- 2201. Intermediate Spanish. (3). (211)**
A comprehensive review of Spanish grammar, with readings and exercises designed to increase the student's vocabulary, contribute to his mastery of idiomatic constructions, and introduce him to Hispanic literature.
- 2202. Intermediate Spanish. (3). (212)**
A continuation of Spanish 2201, with further reading in Hispanic literature designed to enlarge the student's vocabulary and improve his pronunciation.
- 2351. Spanish Drama Workshop. (1). (271)**
A student in this course will work through and produce scenes from well-known Spanish plays, emphasizing good diction and sentence rhythm. **PREREQUISITE:** Permission of department chairman. *Credit in this course will not apply toward a major or minor in modern languages, nor will it satisfy any part of the foreign language requirement for graduation.*
- 3301. Advanced Conversation and Composition. (3). (321)**
Oral practice on common expressions, followed by written composition and oral discussion on themes pertinent to Hispanic life and literature.
- 3302. Advanced Conversation and Composition. (3). (322)**
A continuation of Spanish 3301, with emphasis on written composition and oral reports on topics related to contemporary Hispanic literature and political affairs. **PREREQUISITE:** Spanish 3301, or permission of the instructor.
- 3411. Survey of Spanish Literature. (3). (311)**
Formation of the Spanish language and literature, with readings of representative works to illustrate principal periods and genres from the beginnings to 1700.

- 3412. Survey of Spanish Literature. (3). (312)**
A continuation of Spanish 3411, covering Neoclassicism, Romanticism, *costumbrismo*, Realism, Naturalism, contemporary literature, and present trends.
- 3511. Survey of Spanish-American Literature. (3). (341)**
A survey of Spanish-American literature from the Colonial Period to the end of the period of Romanticism.
- 3512. Survey of Spanish-American Literature. (3). (342)**
A survey of Spanish-American literature from the beginnings of Modernism to the present.
- 3611. Survey of Spanish Civilization. (3).**
Spain and its people; Spanish history from Roman times to the twentieth century; highlights of Spanish civilization as revealed in the fields of literature, music, painting, and architecture.
- 3612. Survey of Latin-American Civilization. (3).**
The culture of Latin America, including Brazil and Haiti, as reflected in its history, archaeology, literature, art, and music. The period covered is from the time of Columbus to the present.
- 4301. Spanish Phonetics. (3).**
Principles of Spanish sound-production and introduction to modern Spanish dialectology. This course is especially designed for teachers who wish to broaden their scope of the language and to study the finer points of describing and reproducing the Spanish phonemic system.
- 4421. The Golden Age. (3). (415)**
A detailed study of Spanish lyric poetry and drama up to 1700. **PREREQUISITES:** Spanish 3411 and 3412, or permission of the instructor.
- 4422. The Golden Age. (3). (416)**
A detailed study of Spanish prose up to 1700. **PREREQUISITES:** Spanish 3411 and 3412, or permission of the instructor.
- 4431. Contemporary Spanish Prose. (3). (412)**
A study of the prose of the Generation of 1898 and after. Outstanding writers in the fields of philosophy, the essay, the novel, and short story from Angel Ganivet to Camilo José Cela and Ana María Matute. **PREREQUISITES:** Spanish 3411 and 3412, or permission of the instructor.
- 4432. Contemporary Spanish Poetry and Drama. (3). (413)**
A study of Spanish poetry and drama from the Generation of 1898 to the present. Among the authors studied are Antonio Machado, Juan Ramón Jiménez, Eduardo Marquina, J. Benavente, Alejandro Casona, and F. García Lorca. **PREREQUISITES:** Spanish 3411 and 3412, or permission of the instructor.
- 4561. Spanish-American Short Story. (3). (422)**
A critical analysis of Spanish-American short stories as they reflect predominant social and ethical problems, and the authors' responses to literary influences from Europe and North America.
- 4562. Spanish-American Novel. (3). (423)**
A critical study of representative works by such novelists as Fernández de Lizardi, Blest Gana, Isaacs, and Güiraldes.

- 4591 Spanish-American Drama, Poetry, and Essay. (3). (421)**
 A critical study of the development of the drama and poetry of Spanish-America in comparison with and in contrast to the drama and poetry of Spain, and a study of the Spanish-American essay in its political and sociological as well as its literary aspects.

(The following courses, offered in The Graduate School, are open to undergraduates within 36 semester hours of graduation. None of these courses carries graduate credit nor is applicable to any degree offered in The Graduate School.)

- 5401. Old Spanish Language. (3).**
 Castilian phonology, morphology, syntax, and vocabulary, following upon an introduction to the general characteristics of Ibero-Romance and medieval Spanish dialects.
- 5402. Old Spanish Literature. (3).**
 Linguistic and literary study of medieval Spanish texts..
- 5421. The Picaresque Novel. (3).**
- 5431. Nineteenth-Century Spanish Literature I. (3).**
 Romantic and post-Romantic poetry and drama.

GRADUATE COURSES IN SPANISH

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

MUSIC

PROFESSOR ROBERT SNYDER, *Chairman*
 Room 123B, Music Building

Requirements for the major and minor in music are listed on page 133; the program for the Bachelor of Music degree is outlined on page 125; Requirements for the major and minor in music education are listed on page 159.

PIANO PROFICIENCY. *All music majors in all degree programs must demonstrate proficiency in piano. This may be done in either of two ways: (1) by acquiring four semester hours of credit in piano in either class or individual instruction, or (2) by passing without credit a proficiency examination in piano based on the level of study described in Music Education 1614—Class Instruction in Piano. Students are expected to arrange with the chairman of the department for a time to take the examination during their first semester of residence.*

I. THEORY AND COMPOSITION

- 1041. Introduction to Music. (4). (110)**
 A bilateral approach to music through (1) a general study of the history of music with emphasis on cultural backgrounds and (2) training in the aural and visual aspects of scales, intervals, and rhythmic patterns.

Three lecture, two laboratory hours per week.

IMPORTANT NOTE: *Students registering for any of the following four theory courses must schedule both sections; together these sections constitute a correlated study of the rudiments of music, including harmony, counterpoint, homophonic forms, sight-singing, and ear-training.*

- 1012. Aural Music Theory I. (1). (111B)**
Sight-singing and ear-training using the unison material studied in Music 1032; keyboard harmony. COREQUISITE: Music 1032.
Two laboratory hours per week.
- 1032. Music Theory I. (3). (111A)**
Traditional harmony including major and minor scales and triads in all positions in four-part writing. PREREQUISITES: Music 1041 and Music Education 1611, or equivalent ability.
- 1013. Aural Music Theory I. (1). (112B)**
Continuation of Music 1012 with more difficult unison and easier two-, three-, and four-part material correlated with Music 1033. COREQUISITE: Music 1033.
Two laboratory hours per week.
- 1033. Music Theory I. (3). (112A)**
Continuation of Music 1032 up to and including the dominant seventh chord; non-chordal tones; two-part counterpoint; harmonic analysis.
- 2014. Aural Music Theory II. (1). (211B)**
Continuation of Music 1013 with classwork correlated with Music 2034. COREQUISITE: Music 2034.
Two laboratory hours per week.
- 2034. Music Theory II. (3). (211A)**
Continuation of Music 1033 with attention to secondary seventh chords; modulation to related keys; instrumental style.
- 2015. Aural Music Theory II. (1). (212B)**
Continuation of Music 2014 with classwork correlated with Music 2035. COREQUISITE: Music 2035.
- 2035. Music Theory II. (3). (212A)**
Continuation of Music 2034 with introduction of altered and highly dissonant chord material; advanced modulation.
- 3021. Canon and Fugue. (2). (302)**
A study of contrapuntal techniques and the fundamentals of canonic writing; invention, chorale elaboration, two-part canon; analysis of works in contrapuntal style of the eighteenth century. PREREQUISITE: Music 3031. (*Individual instruction with added fees as for applied music.*)
- 3022. Canon and Fugue. (2). (303)**
Multiple-voiced canons; study and writing of the fugue as a form and a style in various media; analysis of contrapuntal literature. PREREQUISITE: Music 3021. (*Individual instruction with added fees as for applied music.*)
- 3023. Composition. (2). (305)**
Free composition in the smaller forms for piano, voice, and chorus; a study of style and analysis of master works. PREREQUISITE: instructor's permission. (*Individual instruction with added fees as for applied music.*)
- 3024. Composition. (2). (306)**
Free composition in the smaller forms and sonatina form for piano, voice, chorus, and small ensembles; style and analysis. PREREQUISITE: Music 3023 and permission of the instructor. (*Individual instruction with added fees as for applied music.*)

- 3031. Counterpoint. (3). (301)**
A study of the modal contrapuntal technique of the sixteenth century; writing in two and three parts in the style of Palestrina and Lassus; analysis. **PREREQUISITES:** Music 1013 and 1033.
- 3033. Form and Analysis. (3). (308)**
A study of the basic principles underlying the formal structure of music; analyses of outstanding examples of the suite, sonata, and symphony. **PREREQUISITES:** Music 1013 and 1033.
- 3035. Instrumentation. (3). (315)**
A study of the compass, possibilities, and tonal characteristics of orchestral and band instruments; arranging of various types of compositions for string, woodwind, and brass ensembles; arranging of piano, organ, and choral compositions for full orchestra; transcriptions of selected works for band. **PREREQUISITES:** Music 1013 and 1033.
- 4021. Composition II. (2). (405)**
Determination of individual style through practical application of contemporary compositional techniques; free composition in the larger forms; analysis of important contemporary compositions. **PREREQUISITES:** Music 3024 and permission of the instructor. (*Individual instruction with added fees as for applied music.*)
- 4022. Composition II. (2). (406)**
Free composition in all forms in various media; contemporary adaptations of older forms; calligraphy and preparation of manuscripts; analysis of contemporary works. **PREREQUISITE:** Music 4021 and permission of the instructor. (*Individual instruction with added fees as for applied music.*)
- 4031. Seminar: Music Theory and Analysis. (3). (407)**
An advanced course in theory, counterpoint, and analysis of literature. Contrapuntal and harmonic techniques. Research. Theoretical problems from a pedagogical point of view. Writing in strict and free styles. **PREREQUISITES:** Music 3031 and 3033.

II. HISTORY, LITERATURE, AND APPRECIATION

- 1131. Music Appreciation. (3). (319)**
An introduction to music through a study of its literature and history; significant compositions are oriented to their proper social, cultural, economic, and political settings in order to bring about the most effective understanding and enjoyment of the music. Open without prerequisite to non-music majors.
- 3131. History of Music to 1600. (3). (401)**
A study of the development of the significant musical styles with special attention to the individual contributions of the major composers. **PREREQUISITE:** permission of the instructor.
- 3132. History of Music since 1600. (3). (402)**
A continuation of Music 3131. **PREREQUISITE:** permission of the instructor.
- 4100. Study and Travel in Music. (3 or 6). (407)**
Specialized study and travel under the direction of a faculty member of the Department of Music; a tour of the larger cities of Europe provides for attendance at concerts, visits to museums and other places of cultural importance.

- 4131. Comparative Arts. (3). (411)**
Cultural activities in their interrelation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors of junior and senior standing.
- 4132. Modern Music. (3). (412)**
Contemporary music and composers from Debussy to the present time, including the works of Stravinsky, Bartok, Hindemith, Schoenberg, and American contemporaries. Open without prerequisite to non-music majors of junior and senior standing.
- 4133. The Opera and the Music Drama. (3). (413)**
A survey of the opera before Richard Wagner; study of Wagner's music dramas and operas of his contemporaries; dramatic and musical significance of each phase of the development of the two forms. Open without prerequisite to non-music majors of junior and senior standing.
- 4134. Piano History, Literature, and Pedagogy. (3). (414)**
A study of keyboard literature from an historical and pedagogical point of view; emphasis on style and the development of keyboard technique from the time of the harpsichord composers to the present, with practical applications to piano teaching. Open to music and non-music majors with some keyboard facility and to piano teachers.
- 4135. Sacred Music I. (3). (418)**
Music in the history of the Protestant church; hymnology and the performance of hymns; church choir organization; planning the service; organ and choral repertory. Open without prerequisite to non-music majors of junior or senior standing.
- 4136. Sacred Music II. (3). (419)**
The development and present significance of Roman, Lutheran, and Anglican liturgical music; its relationship to the worship services of non-liturgical denominations. Open without prerequisite to non-music majors of junior or senior standing.

III. CONDUCTING

- 3235. Choral Conducting. (3). (316)**
Fundamentals of conducting; organizing and developing choral groups at all levels; rehearsal procedures; materials. **PREREQUISITES:** Music 1013 and 1033.
- 3236. Conducting and Score Reading. (3). (317)**
Conducting in both choral and instrumental fields; individual practice with the opportunity for each student to conduct choral and instrumental groups. **PREREQUISITE:** Music 3235.

IV. APPLIED MUSIC (INDIVIDUAL LESSONS)

Applied music is offered at three levels: (1) preparatory, (2) lower division, and (3) upper division. Lessons are given by members of the University faculty and by special instructors. Practice facilities are provided without charge, but there are additional fees for the individual lessons.

FEES: The fee for all private lessons in brasses, canon and fugue, composition, organ, percussion, piano, strings, woodwinds, and voice is \$50.00 per half-hour lesson per semester. Those students who are majoring in music (those currently registered for music theory) will pay only one \$50.00 fee per semester.

REGISTRATION: Students will register for individual lessons in the same manner and at the same time as they register for other courses. Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.

CREDITS AND GRADES: One semester hour credit will be granted for one thirty-minute lesson weekly; two semester hours credit will be granted for two thirty-minute lessons weekly. Practice hours will be assigned by the instructor to meet the needs of the student. Grades are awarded on the same basis and have the same significance as in other subjects.

EXAMINATIONS: For an examination in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and technical exercises of a grade of difficulty appropriate to his standing. Examinations will be held in the Music Hall on days set aside for this purpose near the end of each semester. Credit for the course will not be awarded to any student who fails to take the examination.

PREPARATORY COURSES

Regardless of his initial degree of advancement, any student of the University may register for individual lessons at the preparatory level except in organ; organ students must have the ability to play the piano before beginning organ instruction.

- 0310. Brasses. (1).
- 0320. Brasses. (2).
- 0410. Organ. (1).
- 0420. Organ. (2).
- 0510. Percussion. (1).
- 0520. Percussion. (2).
- 0610. Piano. (1).
- 0620. Piano. (2).
- 0710. Strings. (1).
- 0720. Strings. (2).
- 0810. Voice. (1).
- 0820. Voice. (2).
- 0910. Woodwinds. (1).
- 0920. Woodwinds. (2).

LOWER-DIVISION COURSES

Applied music courses in the lower division include the study normally carried out during the freshman and sophomore years. The piano or instrumental student at this level should have had several years of intensive study prior to University entrance so that he has a secure, reliable, and well-grounded technique on his instrument. Organ students may begin at this level provided that they play the piano well and have reasonable ability in sight reading. Requirements for admission to voice study at this level can best be determined by the instructor for the individual student.

Students who fall short of the requirements for admission to the lower-division courses will be advised to register for preparatory courses until deficiencies are eliminated. Course numbers will be repeated for each semester of study.

- 1310. Brasses. (1).
- 1320. Brasses. (2).
- 1410. Organ. (1).
- 1420. Organ. (2).
- 1510. Percussion. (1).
- 1520. Percussion. (2).
- 1610. Piano. (1).
- 1620. Piano. (2).
- 1710. Strings. (1).
- 1720. Strings. (2).
- 1810. Voice. (1).
- 1820. Voice. (2).
- 1910. Woodwinds. (1).
- 1920. Woodwinds. (2).

UPPER-DIVISION COURSES

Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only on the recommendation of the instructor; such a recommendation will be made only if the student's proficiency as a performer bears promise of future artistic and professional qualities as a soloist. It is at this level that the student normally begins preparation for a recital.

- 3310. Brasses. (1).
- 3320. Brasses. (2).
- 3410. Organ. (1).
- 3420. Organ. (2).
- 3510. Percussion. (1).
- 3520. Percussion. (2).
- 3610. Piano. (1).
- 3620. Piano. (2).
- 3710. Strings. (1).
- 3720. Strings. (2).
- 3810. Voice. (1).
- 3820. Voice. (2).
- 3910. Woodwinds. (1).
- 3920. Woodwinds. (2).

V. SMALL ENSEMBLES AND CHAMBER MUSIC

Advanced students are encouraged (and for certain degree plans are required) to participate in these groups. Selection for membership is based on an audition; courses may be repeated with the approval of the student's adviser. Three one-hour meetings per week.

- 3381. Brass Ensemble. (1). (366)
- 3382. Stage Band. (1). (365)
- 3581. Percussion Ensemble. (1). (363)
- 3681. Piano Ensemble. (1). (360)
- 3781. String Ensemble. (1). (362)
- 3881. Madrigal Group. (1). (369)
- 3882. Opera Workshop. (1). (368)
- 3883. Opera Soloists. (1). (367)
- 3983. Woodwind Ensemble. (1). (364)

VI. LARGE MUSICAL ORGANIZATIONS

Each music major is required to participate in one of the following major musical organizations during each semester as a full-time resident student: the University Band, the University Orchestra, the University Chorale, and the University Glee Club; he must obtain permission of the department chairman to receive ensemble participation credit for other musical organizations. Selection for membership is based on an audition; courses may be repeated with the approval of the student's adviser. Three one-hour meetings per week.

- 1391. Music Education Band. (174)
- 1392. University Band. (1). (175)
- 1791. Music Education Orchestra. (172)
- 1891. Men's Glee Club. (1). (178)
- 1892. Women's Glee Club. (1). (179)
- 1893. University Glee Club. (1). (177)
- 3391. University Band. (1). (375)
- 3791. University Orchestra. (1). (373)
- 3891. University Chorale. (1). (377)

GRADUATE COURSES IN MUSIC

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

MUSIC EDUCATION

PROFESSOR GEORGE JONES HARRIS, *Chairman*
Room 279, Music Building

Requirements for the major and minor in music education are listed on page 159.

See page 272 for statement concerning piano proficiency.

FIELD OF ENDORSEMENT FOR TEACHING. *Endorsement may be obtained in either School Music or in Instrumental Music. Normally a student can expect to be recommended in only one of these areas. School Music applicants should be able to play piano accompaniments of average difficulty, should possess an adequate solo voice for school music purposes, and should schedule courses in a wide variety of choral activities. Instrumental Music applicants may satisfactorily meet piano and voice requirements with completion of Music Education 1614 and Music Education 1812, with their prerequisites. Study in one instrument of major emphasis, and participation in concert and marching bands, orchestra and a variety of smaller ensembles will also be required.*

(The following courses, Music Education 1311 through 1912, are designed to teach the music education major, already a competent performer in one field, the playing techniques of the major instruments of band and orchestra and the methods of instructing others in these techniques. Practice facilities are provided and there are no additional fees. Each class meets two hours per week.)

- | | |
|--|-------|
| 1311. Class Instruction in Brass Instruments. (1). | (136) |
| 1312. Class Instruction in Brass Instruments. (1). | (137) |
| 1511. Class Instruction in Percussion Instruments. (1). | (126) |
| 1512. Class Instruction in Percussion Instruments. (1). | (127) |
| 1611. Class Instruction in Piano. (1). | (128) |
| Basic technique, with emphasis on sight-reading. | |
| 1612. Class Instruction in Piano. (1). | (129) |
| Playing of songs used in school music teaching; community songs and hymns; exercises written in music theory classes. | |
| 1613. Class Instruction in Piano. (1). | (130) |
| Simpler Bach chorales, more difficult songs, and accompaniments appropriate to the student's major field; memorization optional. | |
| 1614. Class Instruction in Piano. (1). | (131) |
| Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopin, Schumann, Bartok, and others. | |
| 1711. Class Instruction in Stringed Instruments. (1). | (132) |
| 1712. Class Instruction in Stringed Instruments. (1). | (133) |
| 1811. Class Instruction in Voice. (1). | (139) |
| 1812. Class Instruction in Voice. (1). | (140) |
| 1912. Class Instruction in Woodwind Instruments. (1). | (135) |
| 1911. Class Instruction in Woodwind Instruments. (1). | (134) |

(The two following courses, Music Education 1391 and 1791, provide familiarity with materials and routines suitable for use with school orchestras and bands; they enable a student who plays his major instrument in the University orchestra or band to gain needed playing experience on other instruments and also enable voice, piano, and organ majors to gain ensemble experience. Either course may be repeated for additional credit, or students may participate without credit. Each course meets three hours per week.)

1391. Music Education Band. (1). (174)

1791. Music Education Orchestra. (1). (172)

3231. Music for Children. (3). (123)

A consideration of appropriate musical experiences for children in the school, church, and home. Philosophy, aims, materials, methods. Music appreciation as related to a study of instruments of the orchestra and to representative composers of the period 1650-1825. A functional use of music is approached through practice in the electronic piano laboratory and with easy-to-play instruments. Major scales and key signatures; sight-singing with syllables and numbers; rhythm and meter studies. No prior training in music is required. Not open to music majors and minors.

3232. Music for Children. (3). (124)

A continuation of Music Education 3231; minor scales, primary chords, musical styles and composers since 1825. **PREREQUISITE:** Music Education 3231.

3233. Teaching for Appreciation in Grades 1 through 9. (3). (325)

The listening experience and other related music activities as an approach to the appreciation of music. **PREREQUISITE:** permission of the instructor.

4201. Special Problems in the Teaching of Music. (1 to 3). (421)

This course provides for class or individual study of the problems and opportunities faced by the person who teaches music in the schools; for classroom teachers, music teachers and supervisors, principals, and administrators.

4231. Music Supervision in Grades 1 through 9. (3). (321)

The teaching, supervision, and administration of music; basic concepts, philosophy, and objectives of music education.

4232. Materials and Methods in Instrumental Music. (3). (331)

Developing the band or orchestra; balance and tone quality; conducting and interpretation; problems of intonation; literature for solos, ensembles, and groups of all grades.

OFFICE MANAGEMENT

(See SECRETARIAL SCIENCE AND OFFICE MANAGEMENT)

PHILOSOPHY

PROFESSOR WILLIAM BRYAN BARTON, JR., *Chairman*
Room 318, Humanities Building

Philosophy Honors Program. This program is reserved for those students who have a grade-point average of 3.0 or better. The student will be expected to prepare himself through course work and reading for a compre-

hensive examination to be given during the spring semester of his senior year. He will also be expected to do a senior essay in which he will demonstrate independent work. The essay will be 30 or more pages. The subject must be approved before the semester in which he intends to graduate.

Those students majoring in philosophy must choose their program for the first year from the following: Philosophy 1111, 1221, or 1611. They will be advised to take two of the above, one for each term rather than two at the same time. See page 133 for requirements for the major and minor in philosophy.

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- 1111. Introduction to Philosophy. (3). (111)**
An introduction to philosophy through the great problems arising from man's reflection on the knowledge and nature of the world and human conduct in it. A study is made of some of the great books in philosophy where these problems are discussed.
- 1221. The Philosophy of Plato. (3).**
Readings will be from Plato's dialogues. This constitutes an introduction to Western philosophy through a study of one of the great figures, Socrates, and his disciple, Plato. Plato's ethical and political views, his theory of ideas, theory of knowledge and art will be discussed.
- 1611. Elementary Logic. (3). (112)**
An introduction to the principles of valid reasoning with emphasis on the nature of language, the fundamentals of deductive and inductive inference, and the use of logic as a practical human instrument.
- 2211. History of Ancient and Medieval Philosophy. (3). (311)**
Important systems of thought of ancient and medieval philosophy, with selected readings from the great philosophers.
- 2311. History of Modern Philosophy. (3). (312)**
An introduction to the great philosophers since the Renaissance, with special emphasis on Descartes, Spinoza, Hume, Kant, Hegel, Fichte and the great political and social philosophers of the nineteenth century.
- 2411. The Conflict of Ideals in Contemporary Civilization. (3). (221)**
The philosophical implications of important current issues, with attention to the philosophical presuppositions of the cultural, intellectual, political, and economic conflicts of the modern world. Readings from contemporary authors.
- 2511. Introduction to Ethical Thought. (3). (222)**
An elementary course in ethics with emphasis on a critical analysis of the principle ethical theories and their practical application to the problems of the individual and society. Readings from the great classics in the field.
- 2551. Political Philosophy. (3).**
The relation of the state to the individual as a problem in philosophical theory; the moral and metaphysical basis of politics.
- 2622. Intermediate Logic. (3).**
Symbolic logic, including the propositional calculus, the lower functional calculus, and related topics. **PREREQUISITE:** Philosophy 1611 or permission of the instructor.
- 3322. The Philosophy of Aristotle. (3).**
This course constitutes an introduction to the thought of Aristotle and its problems. The reading will be from the *Categories*, *Physics*, *Metaphysics*, *De Anima*, and the *Nicomachean Ethics*. **PREREQUISITE:** Philosophy 1221 or 2211.

- 3341. Continental Rationalism. (3).**
Continental philosophy in the seventeenth century: Descartes, Spinoza, Malebranche, Leibniz, and Wolff. **PREREQUISITE:** One semester of philosophy or permission of the instructor.
- 3351. British Empiricism. (3).**
A critical and historical review of the philosophies of Locke, Berkeley, and Hume. Special attention will be given to the place of British Empiricism in modern thought. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3371. From Kant to Hegel. (3).**
The development of Kantian philosophy and its influence in the philosophies of Fichte, Schelling, and Hegel. **PREREQUISITE:** Philosophy 2311, or permission of the instructor.
- 3421. The Rise of Analytic Philosophy. (3).**
The development of the views of analytic philosophers from Russell and Wittgenstein to Ayer, Wisdom and others. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3451. The Rise of Existentialism. (3).**
A historical and comparative study of the different existentialist writers and their relation to literature, religion and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3521. Contemporary Ethical Theory. (3). (322)**
This will be a study of the works of the outstanding contemporary philosophers, such as Moore, Dewey, Stevenson, and Toulmin. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3662. Philosophy of Science. (3).**
An examination of the basic features of science. A detailed analysis of the problems of scientific procedure, theory construction, and verification both in the physical and social sciences will be made. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3711. Philosophy of Religion. (3). (313)**
The contribution of philosophy to the basic issues of religion; a recognition of the principles which make religion valid throughout all its diverse forms and in the face of advancing scientific knowledge. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3721. The Philosophy of Living Religions. (3). (314)**
A historical and comparative survey of the philosophies of contemporary non-Biblical religions of the world, with readings in the important literature: Hinduism, Buddhism, Confucianism, Taoism, Islam, etc. **PREREQUISITE:** one semester of philosophy, or permission of the instructor.
- 3761. The Philosophy of Art. (3). (315)**
The major forms of aesthetics as expressed in painting, sculpture, and music, with readings in the great classics in aesthetics. **PREREQUISITE:** one semester of philosophy, or permission of instructor.
- 4011. Theory of Knowledge. (3). (412)**
The basic problems of epistemology, with readings in the important philosophers. **PREREQUISITE:** two courses in philosophy, or one course and permission of the instructor.

- 4021. Metaphysics. (3). (413)**
An analysis of the basic metaphysical concepts and a critical study of old and new theories of the nature of being. **PREREQUISITE:** two courses in philosophy, or one course and permission of the instructor.
- 4031. The Hegelian Tradition. (3).**
An intensive study of certain aspects of Idealism with special attention to the thought of Hegel, Fichte, and Bradley. **PREREQUISITE:** two courses in philosophy.
- 4301. American Philosophy. (3). (415)**
The development of philosophical traditions in the United States from Jonathan Edwards to the present and their relationship to social and cultural history. **PREREQUISITE:** two courses in philosophy. History and English majors may be admitted with one philosophy course.
- 4431. Recent Problems in the Philosophy of Language. (3). (414)**
A study is made of the basic characteristics of scientific language; the problems of meaning and existence are given close attention. **PREREQUISITE:** two courses in philosophy.
- 4441. Phenomenology and its Historical Background. (3).**
A reading and discussion of basic texts in translation of Husserl's *Ideas, Cartesian Meditations* and from the *Crisis of European Science and Phenomenology*. **PREREQUISITE:** two courses in philosophy.
- 4632. Advanced Logic. (3). (411)**
The nature of axiomatic systems, techniques of formalization, and the logical foundations of mathematics. **PREREQUISITE:** Philosophy 2622, or permission of the instructor.

GRADUATE COURSES IN PHILOSOPHY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

PHYSICAL EDUCATION

(See Health, Physical Education, and Recreation)

PHYSICAL SCIENCES

(See Chemistry)

PHYSICS

PROFESSOR CARROLL IJAMS, *Chairman*
Room 121, Manning Hall

Requirements for the major and minor in physics are listed on page 133.

- 1111. Foundations of Physics. (3). (111)**
A thorough study of certain basic principles of science, with particular stress on the nature of physics, designed for the student who has had no previous training in physics. *Credit in this course will not be given to anyone with credit for one year of high school physics; nor will it apply toward a major or a minor in physics, chemistry, or*

physical science; nor will it satisfy any part of the science requirements in the pre-professional curricula. PREREQUISITE: Two years of high school algebra or Mathematics 1211.

Two lecture, two laboratory hours per week.

1112. Foundations of Physics. (3). (112)

A continuation of Physics 1111. PREREQUISITE: Physics 1111. *Credit in this course will not apply to a major or a minor in physics, chemistry, or physical science, nor will it satisfy any part of the science requirement in the pre-professional curricula.*

Two lecture, two laboratory hours per week.

2111. General Physics. (4). (211)

The general physics course, covering the topics of mechanics, heat, and sound; required of all pre-medical, pre-dental, and pre-pharmacy students. PREREQUISITE: Chemistry 1112 and Mathematics 1212.

Three lecture, two laboratory hours per week.

2112. General Physics. (4). (212)

A continuation of Physics 2111, covering the topics of magnetism, electricity, light, and modern physics. PREREQUISITE: Physics 2111.

Three lecture, two laboratory hours per week.

2511. Physics for Science and Engineering. (5). (251)

Designed primarily for students intending to major in physics, chemistry, or mathematics; required of all students in the pre-engineering curriculum and recommended for students planning to teach physics in the secondary schools. PREREQUISITE: Mathematics 2321.

Four lecture, two laboratory hours per week.

2512. Physics for Science and Engineering. (5). (252)

A continuation of Physics 2511. PREREQUISITE: Physics 2511. PREREQUISITE or COREQUISITE: Mathematics 2322.

Four lecture, two laboratory hours per week.

3010. Introduction to Modern Physics. (3).

A one-semester course designed to follow the basic sophomore physics courses and a recommended prerequisite for other advanced courses in physics. The properties of electrons, neutrons, protons, and other elementary particles, together with the basic concepts of nuclear structure, quantum theory, and relativity will be covered. PREREQUISITE: Physics 2512 (or 2112).

Three lecture hours per week.

3111. Mechanics. (3). (311)

An advanced course in classical mechanics covering statistics and dynamics of particles, rigid bodies, fluid flow, work, energy, momentum, force fields, and harmonic motion. Recommended as good preparation for advanced physics courses: PREREQUISITE: Physics 2512 (or 2112) and Mathematics 3391.

Three lecture hours per week.

3112. Mechanics. (3). (312)

A continuation of Physics 3111. PREREQUISITE: Physics 3111.

Three lecture hours per week.

3211. Electricity and Magnetism. (4). (321)

A study of electromagnetic fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetic materials, Maxwell's equations, and reflection and refraction. The laboratory will consist of basic electrical measurements and elementary circuit analysis. PREREQUISITE: Physics 3010. COREQUISITE: Mathematics 3391.

- 3212. Electricity and Magnetism. (4). (322)**
A continuation of Physics 3211. PREREQUISITE: Physics 3211.
Three lecture, three laboratory hours per week.
- 3510. Electronics. (4). (351)**
Theory and applications of electronic devices such as vacuum and gas-filled tubes, photoelectric cells, and semiconductors, with particular emphasis on basic electronic circuitry and laboratory instrumentation. PREREQUISITES: Physics 3010 and Mathematics 2322.
Three lecture, three laboratory hours per week.
- 4010. Advanced Experimental Physics. (2).**
A course designed to teach the use of the more advanced laboratory equipment and instruments, with emphasis on effective planning and performance of experiments, the treatment and interpretation of data, and the use of scientific literature and library facilities. PREREQUISITE: Physics 3112, 3212, and approval of staff.
Six laboratory hours per week.
- 4011. Advanced Experimental Physics. (2).**
A continuation of Physics 4010. PREREQUISITE: Physics 4010.
Six laboratory hours per week.
- 4050. Astronomy. (3). (405)**
A survey course considering practical astronomy, the principal constellations, the solar system, the structure of the galaxy, theories of stellar evolution. Not applicable to a major in physics. PREREQUISITE: Approval of staff.
Three lectures per week, and occasional observation periods.
- 4111. Atomic and Nuclear Physics. (4). (411)**
A study of atomic structure and behavior, the interaction of atomic particles, nuclear structure, and subatomic particles; radiation and its properties and origin, with some consideration of applications of recent developments in physics. PREREQUISITES: Physics 3010, 3112, 3212.
Three lecture, three laboratory hours per week.
- 4112. Atomic and Nuclear Physics. (4). (412)**
A continuation of Physics 4111. PREREQUISITE: Physics 4111.
Three lecture, three laboratory hours per week.
- 4211. Optics. (4). (421)**
Geometrical and physical optics including such topics as thin lenses, spherical mirrors, lens aberrations, optical instruments, waves, interference, diffraction, absorption, transmission, and scattering. PREREQUISITES: Physics 3212; Mathematics 2322.
Three lecture, three laboratory hours per week.
- 4212. Optics. (4). (422)**
A continuation of Physics 4211. PREREQUISITE: Physics 4211.
Three lecture, three laboratory hours per week.
- 4310. Radioisotope Technology. (3). (431)**
Properties and detection of radiation, production of isotopes, use of detection devices, radiation chemistry, thickness and density gauging, activation analysis, moisture measurement, safety procedures, analytical tracer techniques, industrial radiography, procurement of radioisotopes and radioisotope licenses, and design of radiochemical laboratories. Not applicable to a major in physics. PREREQUISITE: Approval of staff.
Two lecture, two laboratory hours per week.

4410. Introduction to Quantum Theory. (3).

Experimental basis of quantum theory; development of the Schrodinger equation and its solution for simple systems; selected applications in atomic and molecular structure. PREREQUISITE: Physics 3010, 3112, 3212. COREQUISITE: Mathematics 4392.

Three lecture hours per week.

4510. Thermodynamics. (3).**(451)**

A mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats, and phase transitions. RECOMMENDED COREQUISITE: Physics 3112 or 3212.

Three lecture hours per week.

4520. Statistical Mechanics. (3).

Elements of kinetic theory and applications to gases, specific heats, magnetism, etc. Partition functions; introduction to Boltzmann statistics and quantum statistics. PREREQUISITE: Physics 4510.

Three lecture hours per week.

4610. Solid State Physics. (3).

Consideration of such topics as lattice vibrations, specific heats, electrical and thermal conductors in solids, magnetism. PREREQUISITES: Physics 3112 and 3212.

Three lecture hours per week.

4710. Spectroscopy. (3).

Atomic and molecular structure as revealed by the study of radiation emitted and absorbed by substances. COREQUISITE: Physics 4111 or 4410.

Three lecture hours per week.

4911. Introduction to Theoretical Physics. (3).

Special mathematical techniques used in the theoretical treatment of physical phenomena, boundary value problems, matrices, Fourier series and integrals, etc., as applied to advanced physical theory. PREREQUISITES: Physics 3112 and 3212. COREQUISITE: Mathematics 4391.

Three lecture hours per week.

4912. Introduction to Theoretical Physics. (3).

A continuation of Physics 4911. PREREQUISITE: Physics 4911.

Three lecture hours per week.

GRADUATE COURSES IN PHYSICS

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

POLITICAL SCIENCE

PROFESSOR ERWIN CLYDE BUELL, *Chairman*

Room 319, Humanities Building

Requirements for the major and minor in political science are listed on page 134.

For information concerning the pre-law curriculum, see page 120.

1101. Introduction to Political Science. (3).**(121)**

Nature and development of the state, role of government in the social process, the nature and development of political organization, and the search for a just balance of authority and freedom.

- 1301 Survey of Modern Foreign Governments. (3). (122)**
A comparative study of political institutions and functions of selected foreign governments: Great Britain, France, Germany, Russia, and Switzerland.
- 2211. National Government. (3). (221)**
The origins of our system of government, the framing of the Constitution, the principles underlying constitutional government, citizenship, civil rights, political institutions, the national executive, the congressional organization and function, and the judicial process.
- 2221. State and Local Governments. (3). (222)**
The role of the state governments in the Federal System, political institutions, elections; the organization, functions, and problems of state government, with special emphasis on Tennessee government.
- 3211. The Legislative Process. (3). (311)**
The origins, organization, functions, and activities of the modern legislature; making laws, supervising the administration, representing and informing the people.
- 3216. Politics and Pressure Groups. (3). (313)**
The development, nature, and functions of political parties; nature and function of pressure groups, and their roles in politics.
- 3224. Municipal Government. (3). (312)**
Structure and policy making; functions and administrative operation; and problems facing the modern city.
- 3306. Latin American Government and Politics. (3). (321)**
The forms of organization, the functions and operations of government in Latin America. Emphasis will be placed on the development of political institutions and present day trends.
- 3401. History of Western Political Thought to the Eighteenth Century. (3). (341)**
The history, formation, and development of political thought of the West, from the political philosophers of ancient Greece to the eighteenth century.
- 3402. History of Western Political Thought from the 18th Century to Present. (3). (342)**
The history, formation, and development of western political thought from the eighteenth century to the present.
- 3405. Introduction to Law and Jurisprudence. (3). (315)**
A study of the sources, functions, and processes of law.
- 3501. International Politics. (3). (331)**
A basic study of international relations, with emphasis on the methodology of international politics as a discipline and the basic political concepts of national policy and international politics.
- 3505. International Organization. (3). (355)**
The history and nature of international organizations; political and ideological concepts toward international cooperation. The United Nations, the regional organizations, and international welfare and/or administrative agencies are used as specific studies.
- 3506. American Foreign Policy. (3). (411)**
An analysis of American foreign policy, with emphasis on the factors involved in developing and implementing policy.

- 3601. Public Administration. (3). (314)**
The concepts and practices of organization and management in the executive departments, national, state, and local; an analysis of bureaucracy, administrative theory, budgeting, personnel, and administrative leadership.
- 3602. Public Personnel Administration. (3).**
A study of the problems of the administrator in recruitment, selection, training, promotion, discipline, and morale of personnel.
- 4211. The Constitution: Governmental Structure and Relationships. (3). (414)**
An analysis of the relationships and controls of the three branches and the nature of the division of power between the nation and the states, with emphasis on the role of the Supreme Court as the arbiter in the constitutional system.
- 4212. The Constitution: Political and Civil Rights. (3). (415)**
An examination of the judicial interpretation of the political and civil rights with emphasis on the period since 1875.
- 4213. Development of United States Domestic Policy. (3). (412)**
A study of the formation and execution of selected domestic policies (fiscal, economic, agriculture and conservation, welfare, grants-in-aid) with a detailed examination of the political and administrative environment of governmental decision making.
- 4214. The Executive Process. (3).**
A detailed study of the role of the executive in American politics.
- 4215. The Judicial Process. (3).**
An examination of the structure of the legal system and the role of the judiciary in government and politics. Emphasis is on the American legal system and the factors which enter into judicial decision-making, including political, social, economic, and psychological factors.
- 4224. Municipal Problems. (3). (413)**
A study of selected problems in municipal administration (organization, personnel, fiscal, planning).
- 4301. British Government and Politics. (3). (423)**
The nature and development of the British Constitutional system, with special emphasis placed on the Cabinet, Parliament, and the Commonwealth organization and function.
- 4305. Soviet Government and Politics. (3). (422)**
Organization and function of the authoritarian state, with emphasis on the role of the Communist Party and ideology.
- 4306. Contemporary Latin American Politics. (3).**
A study of contemporary problems in Latin American politics and inter-American relations.
- 4401. Modern Political Ideologies. (3). (351)**
A study of authoritarianism and democracy as represented by a comparison of democracy, socialism, communism, and fascism.
- 4405. American Political Thought. (3). (431)**
An analysis of political thought in the United States from the colonial to the present time, with emphasis placed on the relation between political thought and political institutions and practices.

- 4501. Contemporary Problems in International Politics. (3).**
A study of contemporary problems in international relations with emphasis on the major powers.
- 4502. Soviet Foreign Policy. (3).**
Basic concepts of Soviet foreign policy; development and techniques; present patterns of Soviet relations with key nations; major problems in future relationships. **PREREQUISITE:** Junior standing.
- 4504. International Law. (3). (432)**
An analysis of the nature, scope, duties, rights, and evolutionary trends of international law.
- 4505. World Communist Movement. (3).**
The development of the world communist movement from its inception to the present; its Leninist origins; the Bolshevization and Stalinization of the movement; the rise of other national communist parties; the Sino-Soviet conflict and "polycentrism."
- 4506. Problems of American Foreign Policy. (3).**
A study of American foreign policy problems taken from specific areas or issues of policy.
- 4601. Policy and Administration. (3).**
A study of the role of the administrator in the formulation of public policy; an examination of the processes, problems, and effects of executive influence in legislation and adjudication.
- 4604. Problems of Public Administration. (3).**
An examination of the administrative processes, including an investigation of laws, the powers, procedures, and the limitations upon administrative offices and agencies.
- (The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)*
- 5106. The Political System. (3).**
A systematic analysis of the elements of the political system, showing the interrelationship of political culture (values, beliefs, attitudes, consensus), the formal and informal patterns of power, the patterns of interest, and the pattern of policy.

GRADUATE COURSES IN POLITICAL SCIENCE

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

PSYCHOLOGY

PROFESSOR ROBERT VIDULICH, *Chairman*
Room 211, Johnson Hall

Requirements for the major and minor in psychology are listed on page 134.

IMPORTANT NOTE: *Psychology 1101 and 1102 are prerequisite for all other courses in the Department of Psychology.*

- 1101. General Psychology I. (3). (111)**
An introduction to psychology as a basic science emphasizing research findings and theoretical interpretations in the investigation of human behavior. Areas covered include individual differences, social processes, aptitudes and vocational adjustment, intelligence, personality, and behavior pathology.
- 1102. General Psychology II. (3). (112)**
A continuation of Psychology 1101. Areas covered include sensation and perception, motivation and emotion, learning and retention, and physiological mechanisms.
- 2101. Psychology in Business and Industry. (3). (212)**
Attitudes, morale, skill, motivation, fatigue, and other psychological factors important in employer and employee relations in business and industry.
- 2102. Social Psychology. (3). (213)**
A study of the influences of group behavior and cultural traditions upon the individual's vocational, domestic, and social adjustments. The psychological factors in the major problems of today.
- 2201. Sensation and Perception. (3). (216)**
Detailed survey of the major senses with emphasis on methods of investigation and behavioral applications. Study of the perceptual processes involving interactions between senses and influences of learning and motivation on perception.
- 2202. Motivation. (3). (217)**
Consideration of the concepts of instinct, drive, and motive, with an integration of animal and human studies in this area.
- 2301. Quantitative Methods. (3). (215)**
Elementary statistics with primary emphasis on computation. Measures of central tendency and variability with introduction to tests of significance and correlation.
- 3101. Psychology of Personality. (3). (311)**
The development, organization, and assessment of the normal personality with an introduction to the nature of personality theory.
- 3102. Psychology of Behavior Disorders. (3). (312)**
A survey of basic concepts of psychopathology with emphasis on the development of behavior deviations; description of various neurotic and psychotic reactions; an introduction to methods of psychotherapy.
- 3103. Developmental Psychology. (3). (316)**
Patterns of intellectual and behavioral development from birth through the adolescent years. Psychological effects of genetic, organic, and environmental influences as the child matures.
- 3201. Learning and Behavior Modification. (3). (314)**
Critical examination of dominant concepts and principles involved in a general theory of behavior with emphasis on the role of habit formation and acquisition of motives.
- 3202. Experimental Psychology. (4). (315)**
Methods and techniques of controlled experimentation in the areas of motivation, learning, and perception. Emphasis on and experience with theoretically oriented research. **PREREQUISITE:** Psychology 2301.
Three lecture, two laboratory hours per week.
- 4101. History of Psychology. (3). (411)**
A general orientation course covering the historical antecedents and systems of psychology. **PREREQUISITE:** 12 semester hours in psychology, including Psychology 3201.

- 4201. Physiological Psychology. (3). (412)**
A study of the physiological functions involved in behavior and experience. Surveys the physiology of the sense organs, nervous system, and response mechanisms. **PREREQUISITE:** 12 semester hours in psychology, including Psychology 3201.
- 4202. Comparative Psychology. (3). (418)**
Detailed study of laws of heredity and interactions of genetic factors and environmental factors as applied to individual and species differences in behavior. Survey of differences between species as to processes underlying behavior including sensation and perception, learning and motivation, and intelligence. **PREREQUISITE:** 12 semester hours in psychology, including Psychology 3201.
- 4301. Advanced Quantitative Methods. (3). (413)**
A follow-up to Psychology 2301 with emphasis on standard errors of all commonly used statistics as well as the analysis of variance, Chi Square, and non-parametric tests. **PREREQUISITE:** Psychology 2301.
- 4302. Psychological Appraisal. (3). (417)**
Introduction to the development and application of psychological tests. Survey of instruments and techniques currently used in the psychological appraisal of the individual. **PREREQUISITE:** 12 semester hours in psychology, including Psychology 2301.
- 4401. Psychology of Exceptional Children. (3). (414)**
Home and school problems of handicapped, retarded, emotionally unstable, precocious, or gifted children. **PREREQUISITE:** 12 semester hours in psychology, including Psychology 3103 or 3201.

GRADUATE COURSES IN PSYCHOLOGY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

RUSSIAN

(See MODERN LANGUAGES)

SECRETARIAL SCIENCE

PROFESSOR RIENZI WILSON JENNINGS, *Chairman*
Room 107, The School of Business Administration Building

Requirements for the majors and minors in secretarial science and in office management are listed on page 147.

- 1210. Elementary Typewriting I. (3). (121)**
Use and operation of the parts of the typewriter, mastery of the keyboard, simple business and professional letters and reports, introduction to tabulations. Both semesters. Students who have completed one or more units of typewriting in high school may not take Secretarial Science 1210 for credit.
Five meetings per week.

- *1220. Intermediate Typewriting. (3). (122)**
Typing manuscripts, legal documents, and the several styles of business letters, tabulations, development of a typing rate of better than 45 words per minute. Both semesters.
- 2120. Fundamentals of Shorthand I. (3). (211)**
Basic principles of simplified Gregg shorthand—alphabet, brief forms, phrases, and abbreviations; beginning dictation and pre-transcription training. Both semesters. Students who have completed one or more units of shorthand in high school may not take Secretarial Science 2120 for credit.
Five meetings per week.
- 2130. Intermediate Shorthand. (3). (212)**
Further study of shorthand theory, acquisition of ability to take rapid dictation and transcribe accurately. Enrollees must be able to type or be enrolled in Secretarial Science 1220 or Secretarial Science 3250 while taking this course. Both semesters. **PREREQUISITE:** Secretarial Science 2120 or permission of the instructor.
Five meetings per week.
- 3140. Advanced Shorthand I. (3). (311)**
Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. Both semesters. **PREREQUISITE:** Secretarial Science 3250 or Secretarial Science 1220.
Five meetings per week.
- 3250. Advanced Typewriting. (3). (321)**
Review of business letter styles, manuscripts and reports, statistical tables, and the tabulating and electronic-computer systems of data processing. Development of a typing rate of better than 60 words per minute. Both semesters. **PREREQUISITE:** Secretarial Science 1220.
- 3510. Business Communication. (3). (351)**
The fundamentals of business communication are examined and studied with a view to a thorough understanding of the techniques of report writing and of some of the basic forms of letters. Emphasis is placed on the writing of reports, financial statements, minutes of meetings, abstracts, and specific types of routine letters. Attention is also given to selection and use of research mediums. The Importance of capitalization, spelling, word division and choice, and of grammar is emphasized. **PREREQUISITE:** Completion of freshman English plus the ability to type.
- 3520. Business Letter Writing. (3). (352)**
Psychology of the business letter, preparation of various types of business letters, letter writing problems. Spring semester. **PREREQUISITE:** Ability to type and freshman English.
- 4160. Secretarial Dictation. (1 or 3). (433)**
Students will do stenographic work in some office on campus. The instructor, after conferring with the office head, will plan remedial work designed to prepare student for stenographic employment upon completion of course. Both semesters. **PREREQUISITE:** Permission of the instructor.
Three or nine hours of office work per week.

*Credit not allowed if student has credit for Secretarial Science 2230 (formerly 222).

- 4270. Secretarial Typewriting and Office Machines. (3).**
Instruction and practice in use of secretarial office machines including; electric typewriters; transcribing from voice writing equipment; ink, spirit and offset duplication; copying machines. Spring and summer semesters. **PREREQUISITES:** Secretarial Science 3250 and 3510.
Five meetings per week.
- 4320. Applied Secretarial Practice. (3). (431)**
Qualifications, duties and training of a secretary; requirements for employment; organization of work; telephone etiquette; business reference books; receptionist techniques. Fall semester.
- 4330. Records Management and Control. (3). (432)**
(formerly Applied Secretarial Practice II)
Handling of incoming and outgoing mail; filing procedures; installation, administration, and control of geographic, numeric, subject and Soundex filing systems; practice in the several types of filing. Spring semester.
- 4400. Punched-Card Methods. (3).**
Introductory course in the operation and use of punched-card equipment. Key punching, sorting, tabulation and preparation of reports, card designing and application to problems in the fields of economics, marketing, accounting, personnel, education, and other areas of research. Both semesters.
- 4401. Punched-Card Applications. (3).**
An advanced course in the field of data processing. The course provides study in flow charting, systems analysis, card layout, systems design and production work on unit record equipment. Both semesters. **PREREQUISITE:** Punched Card Methods 4400 and Accounting 2020.
- 4410. Office Management. (3). (442)**
Modern methods used in office organization and management, scientific office management, office reports, office correspondence, calculating and checking, filing, records retention, duplicating, handling the mail, planning procedures, planning for equipment, office machines, automation, planning for office space, physical working conditions and office layout. Fall semester.
- 4530. Executive Communication. (3). (452)**
Methods and techniques of communication are critically examined through the writing of case problems in correspondence with emphasis placed upon principles and correct writing; and in reports with importance placed upon the collection, analysis, organization, and presentation of authentic data. Open to graduating seniors and to graduate students, the course is primarily designed for the student who has had no basic study in either business correspondence or business report writing on the undergraduate level.
- (The following course, offered in The Graduate School, is open to undergraduates within 36 semester hours of graduation. This course does not carry graduate credit nor is it applicable to any degree offered in The Graduate School.)*
- 5420. Problems in Office Management. (3). (S-542)**
Problems in actuating office employees and controlling the work of the office, including motivating office personnel, job evaluation, recruiting and training office employees, office supervision, standards

and standardization, quantity and quality control, improving procedures, simplification, office forms, measuring and timing office work, office manuals, office costs, and budgets.

GRADUATE COURSES IN SECRETARIAL SCIENCE AND OFFICE MANAGEMENT

Certain of the 4000 courses, described in the preceding section, may be taken for graduate credit. For further information concerning the graduate program, see the Bulletin of The Graduate School.

SOCIOLOGY AND ANTHROPOLOGY

PROFESSOR CHARLES NEWTON, *Chairman*
Room 124, Humanities Building

Requirements for the majors and minors in sociology and in anthropology are listed on page 134. For information concerning the pre-social work curriculum, see page 121.

IMPORTANT NOTE: *Sociology 1111 is a prerequisite for all other courses in sociology.*

SOCIOLOGY

- 1111. **Society and Man.** (3). (211)
Nature and significance of culture; social organization and social processes; social and culture change.
- 2112. **Contemporary Social Problems.** (3). (421)
Investigation, analysis, and discussion of current social problems.
- 2410. **The Modern Community.** (3). (212)
The community and its provisions for health, education, recreation, safety, and welfare; recent trends in control and planning.
- 2420. **The Family.** (3). (312)
The family in social change, the family and personality, family organization, family disorganization and reorganization, families in foreign lands, the future of the American family.
- 2911. **Survey of the Field of Social Work.** (3). (423)
History and philosophy of social work in the United States, functions of public and private social service programs, qualifications and opportunities for social work practice.
- 3311. **Social Statistics.** (3). (426)
Statistical and non-statistical approaches employed in contemporary social research, review and analysis of important monograph findings, practical applications derived from recurring social behavior.
- 3322. **Methods of Social Research I.** (3).
An introduction to the selection and formulation of a research problem; the design of the research project, including sampling procedures; the methods of field observation, questionnaire construction, and participant observation techniques; the analysis and interpretation of research data; the preparation of the research report. **PRE-REQUISITE:** Sociology 3311.

- 3323. Methods of Social Research II. (3).**
An extension of Sociology 3322 emphasizing the methods of the research interview; special techniques used in the study of small groups; the use of secondary sources, including the methods of content analysis; techniques of community studies; and the use of calculators and computers in sociological research. **PREREQUISITE:** Sociology 3322.
- 3430. Social Control. (3). (321)**
The problem of social control, internalizing social control, social structures and institutions in the maintenance of order, improving social control.
- 3440. Social Stratification. (3). (323)**
Social classes and social status; power, prestige, and social opportunities of the upper, middle, and lower classes; cross-cultural analysis of social stratification; social mobility.
- 3450. Dynamics of Social Change. (3).**
A sociological analysis of the theory, nature, meaning, and consequences of social change.
- 3521. Criminology. (3). (411)**
Theories of causation, crime as a business, affiliated problems, trends in punishment, treatment of offenders, control and prevention.
- 3730. Social Attitudes. (3). (322)**
Personal and popular attitudes, attitudes and wishes, attitudes as social forces.
- 3811. Social and Ethnic Minorities. (3). (Same as Anthropology 3811)**
A comparative study of social and ethnic minorities in the United States and elsewhere with a focus on differences in cultural backgrounds, social relationships with the larger society; social, educational, and legal problems; factors contributing to the satisfactory and unsatisfactory adjustments of minorities.
- 3820. Educational Sociology. (3). (416)**
Sociological analysis of education and its functions; school and community relationships; problems of social change and educational adjustments.
- 3841. Industrial Sociology. (3). (413)**
Social characteristics of business and industrial organizations; role of the consultant in personnel organization and human relations programs.
- 3912. Methods of Social Work. (3). (424)**
Theory and practice in social work, social casework, social group work, the interview, analysis of case records, field observation in local social agencies.
- 3913. Group Processes in Community Organization. (3). (425)**
Community organization and the utilization of citizen groups, action research, group process techniques, orientation and application for social work and other fields.
- 4211. Modern Sociological Theories. (3). (422)**
European contributions, American developments, recent trends and influences in sociological theory.

- 4222. History of Social Thought. (3). (419)**
Emphasis on the historic sources of social ideas in Western culture in terms of their relevance to contemporary systematic theory.
- 4412. Urban Research. (3).**
Extensive exploration of research methods that have proved useful in the study of urban social phenomena; the application, limitations, and advantages of various research approaches. **PREREQUISITE:** Sociology 2410 and senior standing.
- 4413. Urban Theory Seminar. (3).**
A seminar in sociological theories of urbanism and urbanization. Analysis of both historical and contemporary theories. **PREREQUISITE:** Senior standing, or permission of the instructor.
- 4522. Analysis of Juvenile Delinquency. (3). (420)**
Trends of juvenile delinquency; the development of case study techniques and diagnosis of juvenile delinquency; comparative analysis of various theoretical approaches. **PREREQUISITE:** Sociology 3521.
- 4523. Techniques of Criminal Investigation. (3).**
A description, analysis, and demonstration of historical and contemporary techniques and procedures utilized in the apprehension of the criminal.
- 4524. Penology. (3).**
The historical and contemporary analysis of penal systems and reformatories in terms of organization, procedures, programs, and effectiveness.
- 4525. Probation and Parole. (3).**
The analysis of various release procedures and their effectiveness from an historical, philosophical, and sociological point of view.
- 4526. Police Administration. (3).**
A comparative analysis of the problems, procedures, organization, and functions of effective police organization.
- 4527. Law Enforcement and the Criminal Law. (3).**
The analysis of those aspects of police and law enforcement procedures and techniques as these apply to local, state, and federal criminal statutes.
- 4528. Research and Statistics for Law Enforcement. (3).**
Statistical and non-statistical approaches employed in contemporary law enforcement; review and analysis of current findings; practical applications derived from recurring deviant behavior. **PREREQUISITE:** Sociology 4522.
- 4610. Population. (3). (417)**
Population theories and policies; their definition and history. Trends in population growth; methods of population analysis, and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change.
- 4620. Human Ecology. (3). (444)**
Spatial structure and land use patterns of urban, rural, and fringe areas; city growth, its spatial and communicative extension into suburban and rural areas, and its impact on the economy, values, and social organization of communities.
- 4710. Social Psychology. (3). (418)**
A study of the social development of the individual and of the underlying sociological and psychological process of human behavior.

- 4720. Collective Behavior. (3). (412)**
Emergence of collective behavior, spontaneous collectivities, social movements, social consequences of restrictive collective behavior.
- 4812. Race Relations. (3). (445)**
A study of ethnic organization and interrelations with specific emphasis on the status of the Negro in American society, and the process of integration.
- 4830. Directed Individual Study. (1 to 4). (499)**
Individually directed advanced reading and/or research in special areas of interest. **PREREQUISITE:** permission of department chairman.
- 4842. Sociology of Occupations and Professions. (3). (414)**
Sociological analysis of the division of labor, occupational groupings, career patterns, and professional associations in modern American society.
- 4843. Human Relations in Business. (Same as Management 4420). (3). (415)**
A study of the principles of human relations as applied to business.
- 4851. Medical Sociology. (3).**
The contributions of sociology to medicine; the sociology of illness, particularly mental illness; practitioners, patients, and medical settings, particularly the modern hospital; the organization and sociology of the distribution of medical care; the status and the methods of research in medical sociology.

GRADUATE COURSES IN SOCIOLOGY

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

ANTHROPOLOGY

- 1100. Introduction to Physical Anthropology. (3). (211)**
Man's place in nature, human origins, the fossil record from archaeological excavations, the biological aspects of race.
- 1200. Introduction to Cultural Anthropology. (3). (212)**
(formerly Society and Culture)
Theoretical frameworks within which social and cultural processes are analyzed, interpreted, and understood; comparative studies of human cultures.
- 2211. Survey of Old World Ethnology. (3).**
Survey of major culture areas in Europe, Asia, Africa, and Oceania, placing these in historic perspective, and studying selected sample peoples in each area.
- 2212. Survey of American Indian Ethnology. (3).**
Survey of major culture areas of North and South America, placing these in historic perspective, and studying selected sample peoples in each area.
- 2312. Survey of Old World Archaeology. (3). (311)**
(formerly Survey of World Archaeology)
Human origins and culture history from the stone age through the rise of earliest civilizations as revealed by comparative study of

materials from abandoned occupation sites in Africa, Asia, and Europe. Last two weeks devoted to archaeological field techniques pointing toward summer field work.

- 2313. Survey of American Indian Archaeology. (3). (312)**
Theories of ancient human migrations into the New World, development of major culture sequences as revealed by comparative analysis of materials from abandoned Indian habitations, emphasis on the rise of pre-Columbian civilizations in Mesoamerica. Last two weeks devoted to archaeological methods.
- 2321. Archaeological Field Techniques. (3). (221)**
Experience in field excavations conducted at Chucalissa Museum; preparation of specimens, use of survey instruments, photographing and keeping archaeological records, map making of small ground areas. Hours individually arranged for either one or both summer terms. **PREREQUISITE:** permission of department chairman.
- 2322. Archaeological Field Techniques. (3). (221)**
A continuation of Anthropology 2321.
- 3035. Indians of the Tennessee Area. (3).**
A survey of the archaeology and ethnology of the Southeast, with intensive study of the various Indian cultures of Tennessee and bordering states.
- 3111. Physical Anthropology and Human Paleontology. (3).**
A comparative study of primate anatomy, physiology, and behavior; detailed examination of the Hominid fossil record; and a summation of population genetics and human variability.
- 3225. Ethnological Field Techniques. (3).**
Methods of collecting and interpreting data pertaining to contemporary societies; personal problems involving conflicts in cross-cultural research.
- 3231. Ethnology of North America. (3).**
Description and distribution of aboriginal culture-types of North America north of Mexico; comparisons and inter-relationships during the pre- and post-contact periods. **PREREQUISITE:** Anthropology 1200; Anthropology 1100 is recommended.
- 3232. Ethnology of Latin America. (3).**
Description and distribution of aboriginal culture-types of South and Meso American; comparisons and inter-relationships during the pre- and post-contact periods. **PREREQUISITE:** Anthropology 1200; Anthropology 1100 is recommended.
- 3242. Ethnology of Africa. (3).**
Description and distribution of aboriginal culture-types of Africa; comparisons and inter-relationships during the pre- and post-contact periods. **PREREQUISITE:** Anthropology 1200; Anthropology 1100 is recommended.
- 3331. Archeology of North America. (3).**
Description and distribution of prehistoric cultural remains in North America north of Mexico. Discussion and comparison of the major regional sequences, extending from the earliest evidences of human occupation until historic times. **PREREQUISITE:** Anthropology 1200; Anthropology 1100 is recommended.

- 3332. Archeology of Latin America. (3).**
Description and distribution of prehistoric cultural remains in South and Meso America, with emphasis on the Aztec, Maya, and Inca areas. PREREQUISITE: Anthropology 1200; Anthropology 1100 is recommended.
- 3381. Research Techniques and Museum Operation I. (3). (314)**
Individual instruction with a focus on the methods of analysis and the planning of displays. PREREQUISITE: permission of department chairman.
- 3382. Research Techniques and Museum Operation II. (3). (315)**
A continuation of Anthropology 3381.
- 3411. Anthropological Linguistics. (3). (325)**
(formerly Mechanics of Communication)
Nature and usefulness of symbols, mechanisms by which they are communicated, relation of symbolic systems to thought and culture, comparative techniques used to reconstruct prehistoric languages.
- 3811. Social and Ethnic Minorities. (3).**
(Same as Sociology 3811).
A comparative study of social and ethnic minorities in the United States and elsewhere with a focus on differences in cultural backgrounds, social relationships with the larger society; social, educational, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities.
- 4065. History of Anthropological Theory. (3).**
The growth of theory and method in anthropology leading to modern historical, sociological, and psychological interpretations.
- 4251. Social Structures of Non-Literate Societies. (3).**
Comparative analysis of social structures and their functional relationships to other cultural institutions, with emphasis on family types, marriage patterns, and kinship. PREREQUISITE: Anthropology 1200 and at least one survey or area course in ethnology; or permission of instructor.
- 4252. Economic Systems of Non-Literate Societies. (3).**
Comparative analysis of economic systems and their functional relationships to other cultural institutions; production, distribution, and consumption in non-literate groups; concepts of wealth, value, property, and ownership. PREREQUISITE: Anthropology 1200 and at least one survey or area course in ethnology; or permission of instructor.
- 4253. Religious and Political Systems of Non-Literate Societies. (3).**
Comparative analysis of religious and political institutions, their inter-relationships, and their function relationships to other cultural institutions; the nature and forms of religious and political behavior, beliefs, and practices. PREREQUISITE: Anthropology 1200 and at least one survey or area course in ethnology; or permission of instructor.
- 4254. Culture Change in Non-literate Society. (3).**
Internal and external factors causing change in the small-scale society; theories of cultural evolution; social changes involved in the emergence of civilization; changes involved in industrialization.
- 4751. Culture and Personality in Non-literate Society. (3).**
Comparison of factors involved in the analysis of personality as contrasted to culture; the interaction of these factors; problems of studying personality cross-culturally.

4752. Applied Anthropology. (3).

Application of anthropological knowledge and techniques to contemporary problems in government, industry, public health, and colonial and native administration. Emphasis on, but not limited to, contacts between industrial and non-industrial societies. **PREREQUISITES:** 12 semester hours of anthropology and permission of the instructor.

4975. Directed Individual Readings. (2).

Intensive guided survey of anthropological and related literature dealing with topics selected by advanced students and accepted by the staff. Compilation, synthesis, and evaluation of the published data; preparation for graduate level work, for students considering anthropology as a profession. Enrollment limited to anthropology majors and minors. **PREREQUISITE:** Permission of staff.

4985. Directed Individual Research. (2).

Intensive guided study of original data, in areas selected by advanced students and accepted by the staff. Collection and/or processing of data in physical anthropology, ethnology, archeology, and linguistics; description, classification, analysis, and synthesis. Preparation for publication. Enrollment limited to anthropology majors and minors. **PREREQUISITE:** Permission of staff.

4995. Senior Seminar in Anthropology. (3).

Problems in contemporary anthropology; may be offered in sections dealing with different topics; field trips and individual assignments.

SPANISH

(See MODERN LANGUAGES)

SPECIAL EDUCATION

(See CURRICULUM AND INSTRUCTION)

SPEECH AND DRAMA

PROFESSOR HARRY AUSPRICH, *Chairman*
Room 143, Speech and Drama Building

The Department of Speech and Drama offers majors in general speech; rhetoric and public address; radio and television; speech pathology and audiology; and theatre and oral interpretation; the requirements for these majors and for the minor are listed on page 135.

Through its affiliation with the Memphis Speech and Hearing Center and television station WKNO, the University is able to offer its students the facilities of these institutions; members of the staff of the Speech and Hearing Center and WKNO teach courses on the campus in speech pathology, audiology, radio, and television.

NOTE: Students may take speech and drama laboratory courses (viz., 3301, 3401, 3501, and 3801) as often as advisers will allow. None of these courses may be repeated for the purpose of improving the grade originally given.

INTRODUCTORY COURSES

- *1011. Business Speech. (3). (101)**
Basic principles of oral communication, with attention to the speaking situation of the business world.
- 1211. Basic Principles of Voice and Diction. (3). (121)**
Principles of effective voice usage, including special attention to the individual voices of the class members; designed to improve voice characteristics and diction.
- *1311. Basic Principles of Public Speaking. (3). (111)**
Adjustment to the speaking situation with emphasis on research, analysis, speech organization, and effective voice usage.
- 1411. Basic Principles of Oral Interpretation. (3).**
Studies and practice in the oral performance of literature based on examination of the language, structure, and meaning of that literature.
- 1551. Introduction to Theatre. (3). (150)**
A consideration of all the dramatic elements of the theatre from the viewpoint of the audience, designed to enhance and improve the student's appreciation of theatrical performances.

THEATRE

- 2511. Beginning Stagecraft. (3). (251)**
A lecture-laboratory course covering basic elements of scenery construction, painting, and stage properties.
- 2512. Advanced Stagecraft. (3).**
A continuation of Speech 2511. Standard and special practices in construction and painting techniques for the preparation of scenery, including ground plans, working drawings, front and rear elevations. **PREREQUISITE:** Speech 2511.
- 2531. Elementary Acting. (3). (253)**
A lecture-laboratory course covering the basic techniques and principles of acting.
- 2541. Stage Make-up. (2).**
Fundamentals of straight and character make-up. The application of the principles governing line, color, and light and shade to make-up problems. Practical experience in make-up through various productions. *One lecture, two laboratory hours per week.*
- 3501. Theatre Laboratory. (1). (300-1)**
Preparation for and participation in University dramatic activities. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 302).
- 3521. Play Direction. (3). (352)**
A lecture-laboratory course covering the advanced principles of play directing, the history of directing, and the problems encountered in directing classic and modern plays.
- 3531. Advanced Acting. (3). (353)**
A survey of acting styles from classicism to the present. **PREREQUISITE:** Speech 2531.

*Credit may be earned in only one of the following courses: 1011, 1311.

- 3551. History of the Theatre. (3). (354)**
A history and survey of drama from Aeschylus to Turgenev.
- 3552. History of the Theatre. (3). (355)**
A history and survey of drama from Ibsen to Ionesco.
- 3561. Theatrical Design. (3). (351)**
The planning and practice of scene design for plays of all periods.
PREREQUISITE: Permission of the instructor.
- 4511. Stage Lighting. (3). (452)**
The planning and execution of lighting for stage productions. PRE-
REQUISITE: Permission of the instructor.
- 4551. Theatre History. (3).**
Special problems in theatre history: the men and ideas which have
shaped the theatre of the western world from antiquity to the present.
- 4561. Stage Costuming. (3). (451)**
A survey of historic dress and the planning and rendering of costume
designs for plays of all periods. PREREQUISITE: Permission of the
instructor.
Two lectures, two laboratory hours per week.
- 4571. Playwriting. (3). (457)**
A study of the theory and principles of writing plays for the stage.
Practice in writing either the short or long play.
- 4581. Dramatic Theory and Criticism. (3).**
The major documents in dramatic theory and criticism from Aris-
totle to the present.

ORAL INTERPRETATION

- 2411. The Art of Oral Interpretation. (3). (245)**
A continuation of Speech 1411, with emphasis on more complex
analysis and performance of the forms of literature.
- 3401. Oral Interpretation Laboratory. (1) (300-3)**
Preparation for and participation in oral interpretation activities, in-
cluding experiments in individual and group forms such as the recital
program and Readers Theatre. One hour credit each semester for
three hours of supervised laboratory work per week. (See note on
page 302.)
- 3451. Interpreters Theatre. (3). (346)**
(formerly Readers' Theatre)
A study of the theory and practice of staging prose, poetry, and
drama in the styles of Readers and Chamber Theatre. Special atten-
tion will be given to point-of-view and aesthetic distance. PREREQ-
UISITE: Speech 2411.
- 4421. Interpretation of Poetry. (3).**
Studies in the style and structure of poetry of specific types and
periods, as related to the response and performance of the oral
interpreter. PREREQUISITE: Speech 2411.
- 4431. Interpretation of Prose. (3).**
Studies in the oral interpretation of prose fiction, with attention to
various literary styles and structures. PREREQUISITE: Speech 2411.

- 4441. Interpretation of Drama. (3). (445)**
Theory and practice in the oral presentation of drama. Class performances are from plays by modern authors, Shakespeare, and the Greek dramatists. **PREREQUISITE:** Speech 2411.

RHETORIC AND PUBLIC ADDRESS

- 2311. Public Speaking. (3). (112)**
Organization and delivery of speeches of various types, including discussion techniques and speeches for special occasions; attention is given to developing the student's ability to analyze and criticize speech performances. **PREREQUISITE:** Speech 1311, or permission of the instructor.
- 2321. Argumentation and Debate. (3). (231)**
The principles of argumentation, analysis, evidence, and the organization of the argumentative discourse.
- 2331. Parliamentary Procedure and Group Leadership. (3). (232)**
The study of the development of rules of conduct for deliberative bodies; practice and criticism in the use of parliamentary procedure; techniques of group leadership with special emphasis on clubs and small organizations.
- 3011. Advanced Business and Professional Speaking. (3).**
An advanced course in the study of speech as a business and professional tool. Particular emphasis will be placed on analysis and performance in the conference and interview situations which are a part of the day-to-day function of the business man.
- 3301. Forensics Laboratory. (1). (300-2)**
Organized preparation for and participation in competitive speech activities including debate, discussion, original oratory, extemporaneous speaking, oral interpretation, and after-dinner speaking. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 302.)
- 3311. Advanced Public Speaking. (3). (332)**
Application of public speaking principles to complex public address situations; additional performances before community groups.
- 3321. Advanced Argumentation and Debate. (3). (330)**
Advanced principles of argumentation applicable to deliberative and forensic speaking, including the preparation of debate cases and participation in intercollegiate debates.
- 3331. Leadership Workshop. (2).**
A course devoted to the study and implementation of group dynamics and group communications theory; the study of leadership techniques through guided participation in lectures, panel presentations, seminars, and other organizational formats.
- 3341. Discussion. (3). (331)**
Study and practice of the principles and techniques of discussion, dealing with current problems of wide interest and significance.
- 4341. Advanced Discussion. (3).**
Advanced theory in the logical, psychological, and sociological investigation of issues in small groups. **PREREQUISITE:** Speech 3341.

- 4351. Persuasion. (3). (433)**
Advanced theory of the psychology of speech, investigation of audience motivation, the theory of persuasive techniques, and practical application of all of these.
- 4361. History and Criticism of British Public Address. (3).**
A study and analysis of British speakers and speaking from the 16th century to the present time. Emphasis will be placed on the speech situation, audience, issues and speakers. Such men as Fox, Pitt, Sheridan, Burke, Disraeli, and Churchill will be considered.
- 4362. History and Criticism of American Public Address. (3).**
An analysis of political, religious and social speaking from colonial times to the present. Such men as Clay, Emerson, Lincoln, Webster, and the Roosevelts will be considered.
- 4363. The Greek Tradition in Rhetoric and Oratory. (3).**
A study of the varying influences on, and movements within, the progressive development of the Greek tradition in rhetorical theory, practice, criticism, and pedagogy from Homer to the Renaissance.
- 4364. Modern Rhetorical Theory: 1700 to the Present. (3).**
The study of the development of rhetorical theory in England, France, and America with particular emphasis on contributors and movements in the 18th and 19th centuries.
- 4371. Speech Criticism. (3). (435)**
Problems in the theory and criticism of classical and modern rhetorical works; application of the principles of rhetoric to the critical evaluation of current public speaking practice.

RADIO AND TELEVISION

- 2811. Fundamentals of Broadcasting. (3). (280)**
A survey of the development of AM and FM radio and television with emphasis on structure, programming, and control; the role of radio and television in education, entertainment, and public service; methods used in evaluating audience interest and motivation.
- 2821. Radio Production I. (3). (281)**
A study of the principles of radio performance and production with specific instruction in audio, microphones, role of the radio director, acting, announcing, and the integration of these elements into the total radio production. **PREREQUISITE:** Speech 2811.
- 2822. Radio Production II. (3). (282)**
Advanced training in radio production with emphasis on the documentary, dramatic program, and special events format. The programs will be taped and played on local radio stations. **PREREQUISITES:** Speech 2811 and 2821.
- 2831. Radio and Television Announcing. (3).**
Concentrated work in basic techniques of announcing for radio and television. Different announcing formats will be considered: commercials, news, sports, weather, and special events. **PREREQUISITE:** Speech 2811.
- 3801. Radio/Television Laboratory. (1). (300-4)**
Preparation for and participation in all phases of radio and television. One hour credit each semester for three hours of supervised laboratory work per week. (See note on page 302.)

- 3841. Television Production I. (3). (381)**
The elements of television production techniques including camera, audio, lighting, staging, graphics, and on-camera appearance. Practical experience in class production of television programs utilizing the facilities of WKNO-TV. PREREQUISITE: Speech 2811 and 2821.
- 3842. Television Production II. (3). (382)**
Techniques of television production including the producing and directing of television programs at WKNO-TV. PREREQUISITE: Speech 3841, or permission of the instructor.
- 3851. Television Performance. (3). (383)**
Problems of the television performer; adaptations in composition and interpretation which the medium requires of the announcer, narrator, master of ceremonies, and actor. Performance situations designed to aid in the development of performance skills. PREREQUISITE: Speech 2811.
- 3861. Radio and Television Dramatic Writing. (3). (384)**
Study and practice in writing for the broadcast media. Emphasis is placed on writing unit programs in dramatic form, including adaptations, documentaries, and original plays. PREREQUISITE: Speech 3841, or permission of instructor.
- 4841. Television Production III. (3). (481)**
An intensive study of the more advanced techniques of television production and direction. Special emphasis on the dramatic and children's formats with regard to their unique production problems. PREREQUISITE: Speech 3842.
- 4871. Television Management and Programming. (3). (482)**
A study of the principles of broadcast management and programming with special attention to station operation, the role of the producer-director, and the productions of local programs. PREREQUISITE: Speech 2811.

PATHOLOGY AND AUDIOLOGY

The following three courses are prerequisite to all other courses in speech pathology and audiology.

- 2611. Phonetics. (3). (261)**
Knowledge and practice in the use of the International Phonetic Alphabet; consideration of the physiology of the ear and vocal mechanism.
- 2621. Principles and Methods of Speech Correction. (3). (262)**
An introduction to the principles and methods of correcting speech and hearing disorders, with scheduled observations and demonstrations at the Memphis Speech and Hearing Center.
- 2631. Audiology. (3). (263)**
An introductory course dealing with the theory and technique practiced in audiometry and speech reading.
- 3631. Auditory Training and Speech Reading. (3). (364)**
Evaluation of hearing losses by means of speech audiometry; methods in auditory training; methods in lip-reading training. PREREQUISITES: Speech 2611, 2621, 2631.

- 3641. Communication: Anatomy and Physiology. (3). (361)**
An introduction to the anatomy and physiology of the hearing and vocal mechanism with attention to pathology affecting speech and voice. **PREREQUISITE:** Speech 2611, 2621, and 2631.
- 3651. Functional Speech Disorders. (3). (362)**
A detailed study of the techniques and methods of correcting speech disorders which frequently have no organic basis. Those disorders emphasized most are stuttering, delayed speech, and poor articulation. Observations in the Memphis Speech and Hearing Center. **PREREQUISITES:** Speech 2611, 2621, 2631.
- 3661. Organic Speech Disorders. (3). (363)**
A detailed study of the techniques and methods of correcting speech disorders of organic origin. The disorders most emphasized are cleft palate, aphasia, voice problems, cerebral palsy, and language disorders. Observation in the Memphis Speech and Hearing Center. **PREREQUISITE:** Speech 3641.
- 3681. Management of the Preschool Deaf Child. (3).**
A study of the language development of the normal and hearing-handicapped child with emphasis on prelinguistic utterances of infancy, language comprehension, and the role of gesture language. Study of the effects of a hearing impairment upon the mental, social, and emotional development of the preschool child. **PREREQUISITE:** Speech 3631.
- 4601. Clinical Speech and Hearing Practicum. (3). (462)**
One hundred hours of supervised experience in evaluating and conducting therapy with children and adults who have communicative handicaps. This work is done in the Memphis Speech and Hearing Center and in other rehabilitation agencies, schools, and hospitals. **PREREQUISITE:** Permission of the instructor.
- 4602. Clinical Speech and Hearing Practicum. (3).**
A continuation of Speech 4601.
- 4631. Audiometric Instrumentation. (3).**
A detailed study of the special problems of audiometric construction, instrumentation and methods of evaluating equipment. Special attention will be given to the purposes of audiometers, hearing aids, and testing rooms in audiometric instrumentation. **PREREQUISITE:** Speech 2631.
- 4632. Advanced Audiology. (3).**
A thorough study of clinical tests in audiology which include pre- and post-operative techniques, electrodermal audiometry, electro-encephalographic audiometry, and automatic audiometry. Special attention will also be given to neurologic implications in audiology and to the theory and testing in advanced audiological evaluation. **PREREQUISITE:** Speech 2631.
- 4671. Speech Pathology (3).**
Steps involved in the differential diagnosis of speech disorders, establishing etiology, and planning a corrective program. Observation of diagnostic sessions in the Memphis Speech and Hearing Center. The contributions of surgery, medicine, psychology, and other related disciplines. **PREREQUISITES:** Speech 2611, 2621, 2631.

SPEECH EDUCATION

2911. Speech for the Elementary Classroom Teacher. (3).

A course designed to improve the speech of teachers. Emphasis is on voice and diction, classroom speaking, and oral interpretation of literature.

4921. Play Production for Secondary Schools. (3). (492)

A survey of the problems of the play director in high school. The course considers: choosing the play, casting, directing, technical aspects of production; then relates these items to the student, the school, and the community.

4922. Directing the Forensics Program. (3). (493)

Designed for the teacher charged with the responsibility of developing and directing interscholastic or intercollegiate competitive speech programs; the study of the historical background for such programs, organizing techniques, recruiting, tournament direction, and other related concerns.

GRADUATE COURSES IN SPEECH AND DRAMA

For course descriptions and further details of the graduate program, see the Bulletin of the Graduate School.

VOCATIONAL AND TECHNICAL EDUCATION

(See DISTRIBUTIVE EDUCATION)

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